



College AND UNIVERSITY Business

**FEBRUARY 1951: Freedom of the University • Social Security
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Cost Control • Student Labor • Small College Fine Arts Center**



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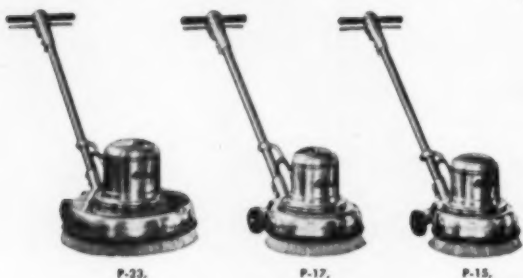
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Among the Authors



R. M. Hutchins

ROBERT MAYNARD HUTCHINS, chancellor of the University of Chicago, has long been a vigorous spokesman for freedom in education and on page 19 outlines his philosophy in regard to freedom of the university. Before he became president of the University of Chicago 20 years ago at the age of 30, he was dean of the Yale Law School. Dr. Hutchins is now on leave of absence from the university, having recently submitted his resignation in order to accept an invitation to become associate director of the Ford Foundation. His resignation from the university officially becomes effective on June 30.



W. C. Greenough

WILLIAM C. GREENOUGH, vice president of the Teachers Insurance and Annuity Association of America, describes in detail on page 23 some of the problems confronting college administrators in their attempts to integrate retirement programs with the recently amended Social Security Act. Prior to joining the T.I.A.A. staff in 1941, Mr. Greenough had served successively as assistant to the president and as personnel director of Indiana University. He served in the navy from 1943 to 1945 and was awarded the Bronze Star Medal while in the Pacific theater. He is the author of a book, "College Retirement and Insurance Plans," published in 1948.



H. M. Gross Jr.

HARRY M. GROSS JR., treasurer and business manager of Case Institute of Technology, explains on page 25 the key sort system of book-keeping and accounting records maintained at his institution. Before he went to Case, Mr. Gross was active in accounting and managerial positions with the General Electric Company, Columbia University, and General Aniline and Film Corporation, Ansco Division. In his spare time he putters around with color photography and gardening.



S. J. Wassom

SAMUEL J. WASSOM, manager of the bookstore at Grinnell College, outlines on page 29 what he considers some of the fundamental policies relative to bookstore operation on a typical college campus. He was a superintendent of schools in Iowa for 12 years before accepting his present appointment. When not on the job, he enjoys indulging his hobby of woodworking and furniture making at home where he also can enjoy his three children. . . LLOYD R. HOILMAN, director of building and grounds at Sweet Briar College, tells on page 32 of the recent installation of fire detection equipment on the campus in order to reduce the risk of disastrous fires in which lives and irreplaceable property might be lost. Before accepting his present appointment in 1947, Mr. Hoilman was in charge of utility maintenance in army cantonments at Camp Lee and Camp Pickett, Virginia.

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Questions and Answers

Subsidize Unions?

Question: Should the college union program be subsidized or self-supporting? Should it become a responsibility of the dean in the establishment of policy and in operation of the program?—M.D.C., Ill.

ANSWER: I assume this question refers only to the union activities program and not to the operation of the building plant.

Most unions have both paid admission programs (dances, shows, concerts, certain movies, certain lectures) and free programs (coffee hours, some dances, some movies, musicales, open houses, lectures, game tournaments and exhibitions). Ordinarily the ticket admission programs are expected to be self-supporting and even make a profit that can help carry some of the expenses of free programs.

The free programs are subsidized, of course, either from the earnings of the admission programs aforementioned, from earnings of the union revenue departments, from allocations from the student's union fee, or from a combination of these. In few, if any, cases does the college subsidize union programs with general college funds, except as heat and light may be provided for the rooms where the programs are held.

Many believe it correct for the direct costs of union programs to be paid out of union fees and other earnings. The union fee and its revenue producing potential are created for just this purpose; if an adequate social program cannot be financed out of the union's income, then the union fee structure should be changed rather than outside sources of subsidy being developed.

Since the union normally has a governing board representing the student, faculty and alumni users of the building, this board ordinarily establishes policy with respect to program; student committees, with the aid of union staff members, administer the program. It is confusing and difficult when there is more than one source of policy determination. The union program proceeds within the framework of general college social policy applying to all students, which the dean may have a key part in formulating, and often

the dean is a member of the union governing board for coordination purposes.—PORTER BUTTS, *director, Wisconsin Union.*

Use of College Buildings

Question: What policy should be followed in the use of college buildings by the general public?—D.T., Mo.

ANSWER: I seriously doubt that the policy at any one institution can be transferred to another. Policies on such matters will vary materially (1) as to whether it is a public or private institution; (2) with the size and character of the community in which it is located; (3) with the proportionate size of the institution to the community; and (4) with similar facilities that may be available in the community.

However, there are major policies that I would think should be applicable to most institutions. Examples are:

1. That such use shall not interfere or conflict with educational and research programs and objectives of the institution.

2. That such uses shall bear their proportionate share of routine operation and maintenance costs, or at least all additional direct costs.

3. That the university shall stipulate the conditions for the use of university property with particular reference to safety and fire protection measures.

In addition, many other problems must be considered which will, of course, vary with the type of institution and local situation. For instance:

1. Shall commercial advertising and selling be permitted?

2. Shall state owned property be used by organizations or individuals of the local community in which the institution is located, or shall such use

be restricted to statewide organizations?

3. Shall political parties be permitted to use university buildings?

4. Shall such facilities be used for the purpose of making a profit?—C. S. HAVEN, *physical plant department, University of Illinois.*

Research Expenditures

Question: What percentage of income should be spent on research?—J.P.C., Canada.

ANSWER: The question posed has quite a range of answers. In an industry, such as a large chemical company where competition is high and where its profitable existence depends on development of new products, a figure of about 5 per cent of gross sales is considered necessary. This may range to as low as a fraction of 1 per cent in an industry where only a continued improvement of its major product is necessary to keep it in a good competitive position.

Generally speaking, a figure of 2 per cent of gross sales has been considered a desirable average expenditure for industrial research. In a highly technical field, continuous research effort is necessary. Expenditures for this purpose are considered as necessary corporate expense which, over a long period of time, must show a justifiable return. It has been stated that in industry "the vice president in charge of research is in reality the vice president in charge of the future."

In educational institutions, the amount of research expenditures considered proper must be related to the institution's "product." It is entirely dependent on the character of the institution. In a trade school, it is likely that no research expenditures will be made. In an institution devoted to high-level Ph.D. work only, nearly all of its expenditures will be for support of research activity. In a more modest institution where the program is largely an undergraduate one, research expenditures may average from 5 to 10 per cent.—J. R. ANTHONY, *controller, Georgia Institute of Technology.*

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill.

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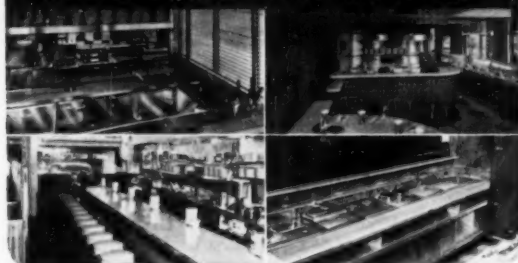


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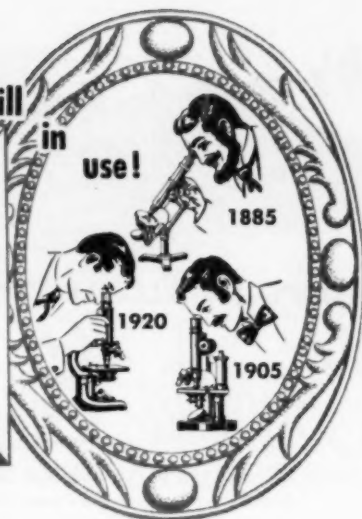
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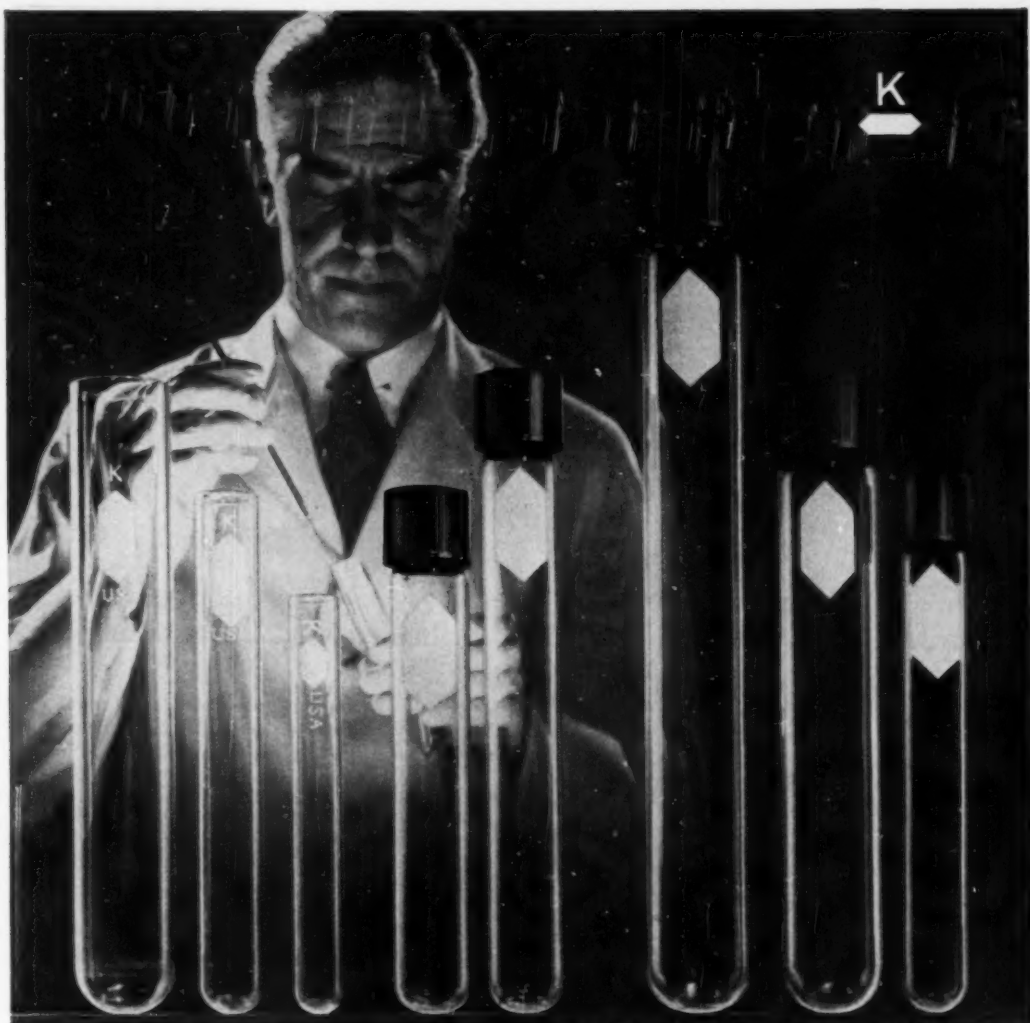
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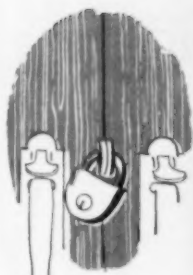
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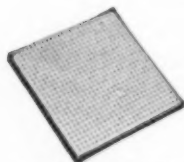


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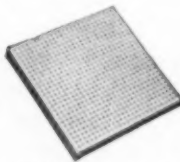
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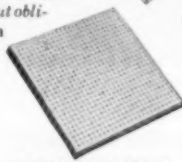
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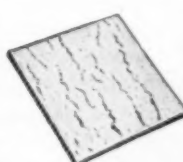
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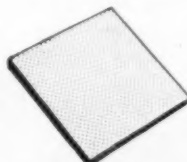
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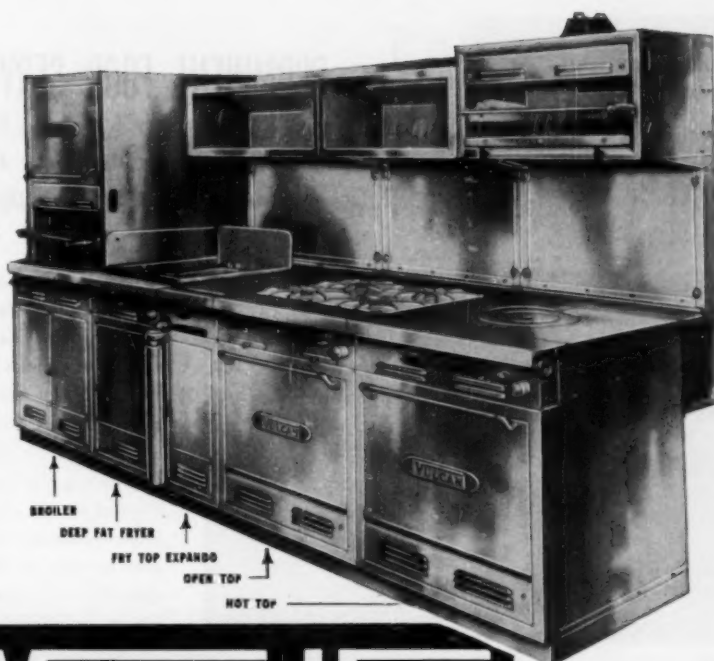


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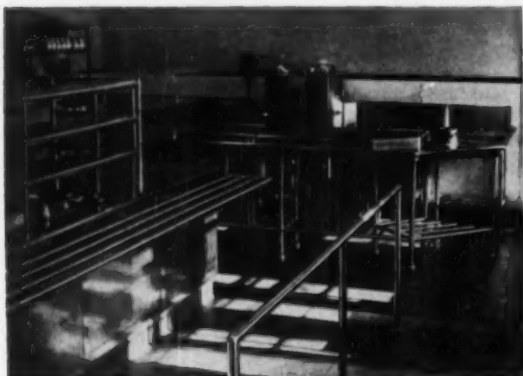
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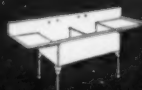
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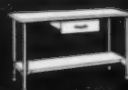
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HOW INDEPENDENT COLLEGES CAN MAINTAIN THEIR INTEGRITY

BYRON S. HOLLINSHEAD

Former President, Coe College
Now Full-Time Consultant, Commission on Financing Higher Education



EDUCATIONAL INSTITUTIONS OPERATE UNDER TWO somewhat contradictory aspects of the American dream. These ideals are not necessarily in conflict, but they are certainly different. One of them is that there should be equal educational opportunity for everyone. The other is that there should be complete freedom and sanctity of the individual.

In carrying out these two ideals the publicly controlled schools and colleges (helped by the privately controlled schools and colleges) have done a magnificent job in making possible a fairly equal educational opportunity for all. While both types of institutions are greatly interested in the freedom and sanctity of the individual, the privately controlled schools and colleges (because they need not be as standardized) may be able better to serve this aim.

In fact, with a standardized, publicly supported educational opportunity available, within limits, to nearly everyone, there is now no great need for independent schools and colleges simply as general purveyors of education. Their rôle is to serve a particular purpose for those students who can benefit by the special kind of education that serves that purpose. The Middle States Association of Schools and Colleges has recognized the validity of this argument by saying that in accrediting institutions it wants, first, a statement of the educational philosophy under which the institution operates. Then it will either accredit or not accredit, not by any standardized procedure but on the basis of how well the educational program of the institution carries out its own expressed philosophy.

While the purposes that an independent higher institution can serve are many and varied, most of them classify under three headings: uniqueness, excellence or special religious emphasis.

In my opinion, the future success of independent colleges and universities depends on whether or not they illustrate devotion to one or another of the foregoing purposes. They cannot exist simply by being duplicates of public institutions, if for no other reason than that they do not have the resources to enter such a competition.

But to be unique or excellent or devoted to spiritual concerns is not easy. Most of the pressures that are applied to college administrators are toward mediocrity and sameness. Unless an institution has a long tradition of difference, it is hard to sustain distinctiveness.

Here the two governing bodies of faculty and trustees play a crucial rôle. The faculty must be convinced of the importance of uniqueness, quality or religious concern, so that it has the courage to implement divergence, and the board must have the will and the ability to support such a program.

One of the strongest arguments for the independent college lies in the independence of its final control—the board of trustees. The independence of such control ought to provide for flexibility and freedom. Yet there is no complete assurance that it will, because boards vary greatly and the qualities of mind and spirit that govern a board are not always high.

However, the experience of many independent colleges and universities would seem to support some useful generalizations about how a board should be constituted. First, it should represent a variety of occupational interests and should not have a predominance of any one occupational group. Second, it should represent a wide geographical area, so that its decisions will not be parochial, and so that at least part of its membership will be at a sufficient geographical distance to have perspective. Third, it should represent different social strata and thus gain some understanding of the mores of more than one social group.

In essence, the integrity and the future success of the independent college depend upon its freedom to be unique, excellent or concerned with religious values, or some combination of these three. Whether an independent institution can hold to these purposes depends upon whether it has a faculty convinced of the value of its special mission and a board willing to support that mission. If it has such a purpose, such a faculty, and such a board, it need not greatly fear anything the future may hold.

Looking Forward

Sanity in a Madhouse?

IT'S DIFFICULT TO BELIEVE THAT THE TOWER OF Babel housed more confusion than now exists in this country in regard to Selective Service operations. Like a radio soap opera, our hero (college student) is beset on all sides by hazards (war, his draft board, etc.), but unlike the radio hero, his script writers (Congress, college presidents) seem powerless to extricate him. Complete confusion appears to be the scenario theme.

One wonders whether the democratic process in the present crisis has compounded the felony by too much talk. Both college and governmental leaders have demonstrated a regrettable eagerness to solve the problem with a "news release" announcing a new plan. The public has become confused, Congress is confused, college administrators are confused, and the center of it all—a young man of military and college age—is an object of complete frustration.

The issues involved are such that they suggest no easy or simple solution. It does appear, however, that Gordon Gray, president of the University of North Carolina, hit close to the center of the target when he observed that: "It seems to me that of the many plans that have been advanced for the solution of the problems with which we are concerned, the chief difficulty is that there has been violent and sometimes highly emotional disagreement on details rather than on general principles."

Even in the matter of general principles there appears to be violent disagreement. One group of leaders in this nation states that the manpower needs of the armed forces are paramount and all else must be subordinated. As Congressman Dewey Short of Missouri, a member of the armed services committee of the U.S. House of Representatives, has cogently stated: "It is obvious . . . from recent development . . . that if we do not raise and maintain the armed forces sufficiently powerful to protect ourselves, leadership—so far as our own existence and our welfare is concerned—will be nothing but an empty phrase, for we will be a conquered nation, and our national leadership will be vested in foreigners, not in ourselves."

Commenting on this problem of all-out demand for military manpower, President Raymond Walters of the University of Cincinnati states that: "In the various proposals for the national emergency there appears (1) a common assumption and (2) a basic issue. These

proposals assume that all American youths are to be subject to universal national service in some form, and most proposals assume that all able-bodied young men are to serve for a prescribed period in the armed forces. The basic issue in debate is the *timing* of national service."

The factor of timing is of particular interest to college administrators. Will college education come before or after military service? Either way, it will call for all the ingenuity of college executives in trimming sails and sailing through uncharted waters.

Strenuous as is the current crisis, there must be some cool heads and courageous hearts; this is no time for panic. Dr. David A. Lockmiller, president of the University of Chattanooga, asks: "How many of us possess that serenity of spirit and balanced perspective traditionally associated with the liberal arts? We have grown accustomed to sensitive and erratic temperaments in the field of business and finance, and we are not surprised when political leaders veer rapidly with changing opinions, but what has happened to our faith, our unity and sense of mission, and our ability to lead and influence others in correct ways of life?"

The mark of an educated man should be his ability to think for himself. Let us hope that in the present madhouse of confusion administrators of higher education can develop an immunity to the panic virus.

Robert Maynard Hutchins

THE DEPARTURE OF CHANCELLOR ROBERT M. Hutchins of the University of Chicago removes a great educator and philosopher from higher education.

Many are those who differed with him on educational objectives but none who questioned his intellectual honesty and integrity. His incisive conception of the purpose of education was such as to leave his critics on shifting sands when challenging his logic. Dr. Hutchins' conception of a college or university was that it was a place where a person learned how to think for himself. It was not a terminal facility; it was not an elaborate trade school; it was not a sports or social center.

Such singleness of purpose was seldom popular. Notwithstanding, it was instrumental in building a great university. Besides, it was of no moment to Dr. Hutchins whether his philosophy was popular or not. Of such stuff are great leaders made.



THE BEST DEFINITION OF A UNIVERSITY that I have been able to think of is that it is a center of independent thought. Such centers are indispensable to the progress, and even to the security, of any society. Perhaps the short lives that dictatorships have enjoyed in the past are attributable as much to this as to any other single thing: dictatorship and independent thought cannot exist together; yet no society can flourish long without independent thought.

Independent thought implies criticism, and criticism is seldom popular in time of war or of threatened war. Then every effort is made to force conformity of opinion upon the entire population, and the country often goes into an ecstasy of tribal self-adoration. This loss of balance is unfortunate for the country. The United States suffered more from the elimination of Germanic studies here during the first World War than Germany did, and we have had to do a quick about-face in our attitude toward Japan and Germany since the second war. If war is for the sake of peace—and no one will contend that it is an end in itself—then we have to think, when war is imminent, where we shall be and what we shall do when it is over. Such thinking is difficult to do in the midst of cries of "unconditional surrender" addressed to the enemy and "traitor" addressed to those citizens who do not agree with the majority opinion of the moment.

Independent thought is valuable, even in a crisis. Perhaps it is especially valuable then. But to appreciate its value, even in such "normal" times as we had before 1917, requires a degree of understanding of education and of universities and of intellectual activity in general that the American people seem not yet to have attained.

I do not underestimate the tremen-

From an abstract of the Sidney Hillman Foundation Lecture delivered at Columbia University and published in full in *Ethics*, Vol. LXI, No. 2 (January) 1951.



LOOKING THROUGH AN ARCH ON THE UNIVERSITY OF CHICAGO CAMPUS

FREEDOM *of the university*

ROBERT M. HUTCHINS
Chancellor, University of Chicago

dous contribution America has made in originating and applying the doctrine of education for all or the generosity with which her citizens have supported her educational institutions. But these things, when education is defined as a means to a better

job or a higher social position and when intellectual activity is appraised in terms of its immediate material benefits, do not compel revision of my statement that the American people do not yet set a proper value on independent thought.

We have a great tendency to substitute names for things. The American people are devoted to the name of education. If they can find something that they can call education but that is really something else, like schooling or training or housing or exercising the young, they will enthusiastically support it, and at the same time they will be indifferent to and even fearful of true education. True education is the improvement of men through helping them learn to think for themselves.

Since a university faculty is a group set apart to think independently and to help other people to learn to do so, it is fatal to force conformity upon it. Nobody would argue that all professors must be members of the Republican party, but we seem to be approaching the point where they will all be required to be either Republicans or Democrats (right wing). I do not claim that the status of university professor should entitle a man to exemption from the laws. But I do say that imposing regulations that go beyond the laws is impractical and dangerous. There are fashions in opinion as well as in behavior. We are just emerging from an era in which a schoolteacher could lose her job by smoking, dancing or using cosmetics. We should avoid entering one in which a professor can lose his post and reputation by holding views of politics, economics or international relations that are not acceptable to the majority. This is thought control.

RESENT LOYALTY TESTS

Perhaps the most important reason for the resentment of university faculties at the proposal that they should be given special tests for loyalty is their fear that it portends an effort on the part of the government, or of the public or its representatives, to assume control over the course of study, the program of research, and the qualifications of the members of the faculty.

In view of what is going on in many parts of the country, this fear is not unjustified. Since academic bodies have from time immemorial asserted their right to the sole determination of these matters, since this is their most sacred and essential prerogative, and since the transfer of this prerogative to any external agency might lead to the disintegration of the university and the collapse of its standards, the objections of faculties to anything looking in

this direction are comprehensible and correct.

I do not attach much importance to the argument sometimes advanced by professors that in an age of specialization only a professor of engineering can appraise an educational program or a research project or another professor, in engineering. Anybody who has had any experience in academic administration knows that there is such



a thing as departmental self-adoration and that it is not confined to the good departments. The votes of faculties sometimes seem to reflect the competition of vested interests rather than a considered judgment on educational policy.

It is true that the extreme specialization of our day makes it hard for one outside the field to make an intelligent estimate of the work and the workers within it. It is equally true that specialization has divorced the specialist from the understanding of fields outside his own and, hence, from a comprehension of the problems and policies of other departments and of the university as a whole. Nevertheless, if we have to choose between the myopic egocentricity of internal control and the blind bumbling of external control, I should prefer the former.

External control by definition prevents universities from being centers of independent thought. By definition, if they are dominated by outside agencies or influences, they are not independent and can engage in independent thought only by sufferance. Such sufferance is likely to be short-lived in the absence of a clear understanding and a strong tradition supporting independent thought.

A commission in Great Britain and one in the United States have lately studied the press and come to the same conclusion, that what is needed is not control, but criticism. The freedom of the press is too important to be lost; the irresponsibility of the press is too dangerous to be ignored. Unlike the press, the universities are subjected to a good deal of criticism, most of it from the press, and much of it hap-

hazard and uninformed. I do not know of any irresponsible universities, though the Oxford described by Gibbon and Adam Smith shows that such a thing is not impossible. In our day the gross error of the universities is not that they luxuriate in slothful self-admiration, but that they are too responsive to public whims. This may suggest to us that there is a difference between being responsible and being responsive.

In order to guarantee the independence of members of the faculties, most universities give them permanent tenure when they reach a certain rank. This is in recognition of the fact that their purpose in life cannot be achieved if their thinking is subject to the control of presidents, chancellors, trustees, regents or the public. Of course, mistakes cannot be avoided in the appointment of professors to permanent tenure. Some men may incorrectly be suspected of the ability to think; others may stop thinking when they have arrived at life tenure. This is the price that is paid for the independence of professors, which is another way of saying that it is part of the price that is paid for the greatness of a university.

TENURE FORM OF INSURANCE

Tenure is valuable, for, like an insurance policy, it is a provision for unpleasant contingencies. Like an insurance policy, it cannot provide for all contingencies and, in the worst, it is quickly swept away. Runaway inflations or general bankruptcy will wipe out the protection of insurance; mass hysteria will do the same to tenure. The record shows that the professors at the University of California were entitled to think that they had tenure; it has been a great talking point in the past year, but at the last it has turned out to be nothing but a talking point. The professors have lost their positions. Everywhere in the United States, university professors, whether or not they have tenure, are silenced by the general atmosphere of repression that now prevails.

In addition to being a member of a university faculty, a professor is a citizen. When a man becomes a professor, he does not become a second-class citizen, disabled from saying, doing or joining anything that other citizens may legally say, do or join. The university assumes no control over his activities as a citizen, and its public relations may suffer as a result. Of course, they may also benefit.

Whether they suffer or benefit will depend in part on the temper of the times.

The public relations of Columbia and Johns Hopkins doubtless benefited when Professor Jessup and Professor Latimore began to serve the country. They doubtless suffered when Senator McCarthy presented his charges against them. I think it will not be argued that a professor should decline to take a public post or to express himself on a controversial question for fear Senator McCarthy may call him a Communist. It is useful to remember that a Chicago professor whose activities as a citizen provoked some criticism 15 or 20 years ago is now the much admired junior senator from Illinois. He has not changed in this period; public opinion has.

ENCOURAGE INDEPENDENT THOUGHT

What, then, are the limitations on the freedom of the faculty? They are the limitations on independent thought. These should be nothing more than the laws of logic and the laws of the country. I would hope that the laws of the country would not seek to control thought. I do not believe that any legislative body can repeal or amend the law of contradiction. I do not see how it is possible to say that the same thing is both true and not true at the same time in the same respect, and I should think it difficult to conduct any communication within the community of scholars unless they all accept the law of contradiction.

I should not suggest any other limitations, and if any professor wanted to show—as some of our colleagues do—that the law of contradiction has been repealed by modern scientific advances, I should encourage him to pursue his outrageous course. If a professor can think and make his contribution to a center of independent thought, that is all that is required of him. One might wish that he were more agreeable or more conventional, but he cannot be discharged because he fails to measure up to desirable standards in these respects. As long as his political activities are legal, he may engage in them.

How do we determine whether a professor can think? The competence of a professor in his chosen field should be determined by those who are qualified to have an opinion. If a professor is held to be incompetent by those admittedly expert in the field, he cannot complain that it is unjust

to relieve him of his post. The activities of a professor as a citizen, however unpopular they may make him or the university, can be called in question, like those of other citizens, only by the duly constituted public authorities, and they can act only under the law. Education and research require the best men. But those men will not enter academic life if it carries special disabilities with it.

Even when a professor's peers believe that he is incompetent and recommend his dismissal, great care must be taken to see to it that he is not a victim of the prejudices of his colleagues. Professors do not like unconventional people any better than the rest of the population does. The man who is breaking new ground and who consequently thinks that most of his colleagues are wrong in their points of view will hardly be the most popular member of the faculty. Geniuses have had a hard time as professors in America. Every effort must be made to protect the originality as well as the independence of the thinking in a university.

Like most other chancellors and presidents, I have spent a considerable part of my life defending professors with whom I did not agree. A principle is no good unless it is good in a crisis and unless it applies to those who hold views opposite to your, as well as to those who share your, opinions. It makes no difference, therefore, whether or not the chief executive of a university likes and agrees with a professor; he must defend his independence because the life of the



university is at stake. Professors are not employees, either of the chief executive or of the board of trustees. They are members of an academic community. The aim of the community is independent thought. This requires the defense of the independence of its members.

I do not claim that professors are the only people who can think or the only people who do. I merely say that, unless a man can and will think, he should not be a professor, and that

professors are the only people in the world whose sole duty is to think. To require them to stop thinking or to think like everybody else is to defeat the purpose of their lives and of their institutions.

I recognize, too, that these are dangerous times and that the state must take precautions against those who would subvert it. I do not suggest that those who want to force conformity upon academic bodies do so from any but the most patriotic motives. I do say that they are misguided. The methods they have chosen cannot achieve the result they seek. They will, on the contrary, imperil the liberties we are fighting for, the most important of which are freedom of thought, speech and association. If we cannot ourselves understand and apply our own principles, we cannot expect the rest of the world to rally to them.

How can we reconcile this conception of a university with the facts of its legal control? The legal control, we find, is not so important as the manner and degree of its exercise.

DIFFER FROM CORPORATIONS

American universities are organized on the model of the big business corporation, which leads to all kinds of temptations to analogize them in every respect to such corporations. But there are important differences. The American endowed university is like the U.S. Steel Corporation in that it has a board of directors and a management, but it is different in that there are no stockholders, there is no profit-and-loss statement, and there are, on the academic side, no employees. The responsibility of the board of trustees, as long as it stays within the law, is to its own conscience. The measure of the prosperity of the institution cannot be found in any report of its financial condition. The quality of the university is determined by the quality of its faculty, whom the board of trustees cannot select and whose work it cannot direct.

Obviously a high degree of responsibility, forbearance and understanding are required of trustees under the American system if they are to allow it to become a center of independent thought and are not to follow the natural lines suggested by the fact that a large university looks like any other large corporation. The complete legal control of the board of regents or trustees is undoubted. Those who have the legal control should be wise enough to

refrain from exercising it. In this view the trustees become not the managers of the university but its best friends and severest critics, laymen who are interested in the university, who believe in it, and who wish to assist it. I do not subscribe to the notion that the board should operate the university as the representative of the community. Nor do I subscribe to the notion that the board is a kind of supreme court that should decide educational issues brought before it. This would mean that the board would be determining the educational policy of the institution, something that even the best boards are not qualified to do.

ALWAYS NEED MONEY

The difficulty is money. Universities always need money. Even those which have the most can always see ways in which they could use more. How can they get more except by being responsive to public whims? How can they get it if they are independent? The tax supported universities must get their money from legislatures. The endowed universities must get theirs from contributors, and the contributors who could do the most are those with the most money.

The present primacy of public relations in the management of universities, the view that they must ingratiate themselves with the public, and in particular with the most wealthy and influential portions of it, the doctrine that a university may properly frame its policies in order to get money and that it may properly teach or study whatever it can get financed—these notions are ruinous to a university in any rational conception of it. They are on a par with what is perhaps the most widely held and most erroneous notion about university management, that the principal duty of the chief executive is to raise money. The principal duty of the chief executive of a university is to produce a university that deserves support. His secondary duty is to raise the money to support it.

So public relations are secondary. The policy of the university should not be formulated with a view to its public relations. Its public relations should be formulated with a view to its policies. A university should not adopt a policy because it will bring money. It should work out its program and then get it financed. In the long run difficulties encountered in financing a good program will be less embarrassing than success in financing a bad one.

Most of the discussion of higher education in the United States is about money. Money is very important, but we ought to think once in a while about the things that money cannot do. The only problems that money can solve are financial problems. Money cannot make a great university; it can only supply the means to one. We know that millions are spent annually on the enterprises called educational that have no educational value. Money cannot even buy men, because the best men will not stay long in an institution that has nothing but money.

If an institution has an idea, it can use money to realize it. If it has no ideas, all the money in the world will not help it. The important problems of American education are intellectual, not financial. In this situation there is grave danger in money, for there are numerous instances in which money has been spent for purposes that could not be achieved or that should not be achieved, with the result that the institution where it was spent and the educational system as a whole have been deformed.

QUANTITY V. QUALITY

We all know that beautiful buildings and expensive equipment do not make a great university. Some of the best work at the University of Chicago has come out of the poorest quarters. Which could be better—a faculty of 1000, average fair, or a faculty of 500, average excellent? A large and mediocre faculty will cost more than a small but superior one. Its effect is diffuse; its example is uninspiring, and consequently it is difficult to rally the public to its support or its defense.

With transportation what it is today, I do not see why every university should try to teach and study everything. Some subjects do not seem to me to have reached the teaching stage, yet we are ardently engaged in teaching them. Other subjects have not the staff available for instruction everywhere. Others can be adequately dealt with if they are studied in a few places. The present passion for cyclotrons seems to me excessive. The infinite proliferation of courses is repulsive. There is a good deal of evidence, I think, that the educational system as a whole needs less money rather than more. The reduction in its income would force it to reconsider its expenditures. The expectation that steadily increasing funds will be forthcoming justifies the maintenance of activities

that ought to be abandoned; it justifies waste.

Some waste is inevitable, but the amount that we find in some universities is disgraceful. These institutions carry on extravagant enterprises that by no stretch of the imagination can be called educational and then plead poverty as the reason for their financial campaigns. The self-interest of professors, the vanity of administrators, trustees and alumni, and the desire to attract public attention are more or less involved in these extravagances. Yet the result of them is that the institution is unintelligible and, in every sense of the word, insupportable.

PURPOSES SACRIFICED

The California loyalty oath originated in the desire of the administration to get money from the legislature. As this genesis suggests, the chief danger to American education is that it will sell its birthright for a mess of pottage. The danger to it is that in seeking money it will sacrifice the purposes for which it exists. I have enough faith in the intelligence and generosity of the American people to believe that they will understand and support universities that have principles, that will try to make them clear, and that will stick to them.

Every time a university takes another step in the direction of the service-station conception or the public-entertainment conception or the housing-project conception of the higher learning, every time it makes a concession to public pressure in order to get money, every time it departs from the idea of a university as a center of independent thought, it increases the confusion in the public mind about what a university is and makes it more difficult to present any rational appeal for the independence that true universities are entitled to. The universities are themselves largely responsible for the lack of understanding of education and of intellectual activity that I complained of in the beginning.

The university should be the symbol of the highest powers and aspirations of mankind. Mankind aspires to achieve human felicity through the exercise of reason. Independent thought is the ultimate reliance of the race. Abandoning vanity and sham, the universities should dedicate themselves to their great symbolic task. Upon their performance of this task rests their claim to freedom.

questions on SOCIAL SECURITY

WILLIAM C. GREENOUGH

Vice President, Teachers Insurance & Annuity Association of America

NOW THAT THE RUSH TO OBTAIN social security coverage by January 1 is over, we can take stock of the action taken by colleges and universities. We shall mention also a number of pertinent questions regarding coverage for the future.

The college business officer deserves the appreciation of staff members throughout the country for the speed with which he acquired the necessary knowledge of this intricate piece of legislation and for the manner in which he expedited the clumsy procedure for qualifying under the law. The act was not signed by President Truman until late in the summer, the governmental regulations regarding qualifying by nonprofit organizations were not issued until November 17, and then only in tentative form, and the forms for obtaining the signatures of staff members were not generally available until the middle of December. Yet by the end of the year a large majority of the private educational institutions had completed all necessary steps to qualify their staffs under the program.

This article will stress a variety of questions that have been asked, without attempting to treat the subject of Old-Age and Survivors Insurance (O.A.S.I.) comprehensively.¹ The statistical information is based on a survey conducted among T.I.A.A.'s 600 cooperating institutions, with replies having been received from 341 institutions, including 218 colleges and universities and 123 other educational institutions, at time of writing.

QUESTIONS AND ANSWERS

Q.—What is the status of employees of publicly supported institutions of higher education?

¹For additional information see George E. Van Dyke's article in the September 1950 issue of *College and University Business*, W. C. Greenough's articles in the Autumn 1950 *A.A.U.P. Bulletin*, and the October 1950 *Educational Record*, and various publications available from Teachers Insurance and Annuity Association, 522 Fifth Avenue, New York 18, N.Y.

COORDINATION OF O.A.S.I. WITH T.I.A.A. RETIREMENT PLANS

PLANS CLASSIFIED ACCORDING TO TOTAL CONTRIBUTIONS AS A PERCENTAGE OF SALARY	NUMBER OF TEACHERS	PERCENTAGE OF TEACHERS EMPLOYED
O.A.S.I. added to 15% T.I.A.A. plans	3,926	9
O.A.S.I. added to 11-14% T.I.A.A. plans	1,886	4
O.A.S.I. added to 10% T.I.A.A. plans	16,654	39
O.A.S.I. taxes and T.I.A.A. premiums total 15%	11,007	25
O.A.S.I. taxes and T.I.A.A. premiums total 11-14%	7,315	17
O.A.S.I. taxes and T.I.A.A. premiums total 10%	2,735	6
	43,523	100

A.—Persons in positions covered by existing retirement plans are excluded from O.A.S.I. The pertinent sections of the act are being interpreted by the Federal Security Agency to exclude persons covered by publicly administered systems or by systems administered by private organizations. The terms of the act so interpreted eliminate most state universities and all state teachers colleges from O.A.S.I. coverage presumably until the law is amended. The following questions deal with nonprofit institutions.

Q.—How many nonprofit colleges will not take O.A.S.I.?

A.—Apparently few; we know of only one that has taken definite negative action.

Q.—What proportion of staff members vote in favor?

A.—Between 85 and 90 per cent at most institutions, far above the two-thirds vote necessary. Worries that some classifications of staff members would keep the entire group out have not materialized.

Q.—Can a nonprofit college or other educational institution still get O.A.S.I. coverage?

A.—Yes. Coverage can start on January 1, April 1, July 1 or October 1 of any year after 1950 for nonprofit institutions, but not retroactively. Delay in filing the required certificate (Form SS-15) will reduce the benefits of most staff members. For instance, if coverage for the institution does not start until April 1, 1951, benefits will

be permanently reduced for persons who do not earn \$3600 or more in covered employment during the remaining nine months of the year 1951.

Q.—Can employees who voted against coverage or who did not vote come under the program later?

A.—Yes, but only during the first four months in which coverage is effective for the institution. If coverage started Jan. 1, 1951, stragglers have only until April 30, 1951, to sign up on Form SS-15a Supplement. In this case their coverage and taxes will begin as of Jan. 1, 1951.

Q.—Should the college keep a list of the "no" votes?

A.—Yes. It does not have to file such a list with the government, but unless it has the signatures of those who turn down O.A.S.I. coverage, it may face embarrassing situations, particularly from survivors of staff members, at a later date.

Q.—What happens to the O.A.S.I. benefits of persons who have been receiving survivor or old-age benefits under the federal program while working for a college?

A.—If present employees do not sign the official lists (Forms SS-15a or SS-15a Supplement), then their O.A.S.I. benefits can continue. If they do sign or if they are new employees engaged after the effective date of the college's coverage, they would not receive benefits for any month in which they are under age 75 and earn more than \$50 in the college's employ.

Q.—What revisions are being made in existing T.I.A.A. plans to coordinate with O.A.S.I.?

A.—This depends on the present contribution rate to T.I.A.A. Where the existing plan provides inadequate benefits by usual standards, present indications are that O.A.S.I. will be added on top for the vast majority of teachers. Where the existing plan is more generous, O.A.S.I. is either being added on top or else the present plan is being revised so that total contributions are kept the same but cover both O.A.S.I. taxes and annuity premiums.

The 218 colleges that to date have answered a questionnaire on the subject employ 43,523 teachers, according to the 1951 World Almanac. Their retirement plans can be classified according to the total percentage of salary contributed by the individual and the employing institution toward O.A.S.I. taxes and annuity purchases.

Based on the questionnaires received to date, this is an excellent showing, and is especially commendable in a year when college budgets are severely strained. It indicates that retirement plans of most private colleges are in good shape. The only really weak category in which prospective annuities by and large will be seriously inadequate is the last one. While only 6 per cent of the teachers are in this group, 15 per cent of the institutions are so represented.

Q.—Can T.I.A.A. policyholders pay extra premiums "on their own"?

A.—Yes. For instance, at Smith College, which has a 15 per cent plan, the T.I.A.A. contributions are being reduced on the first \$3600 of salary by the amount of the O.A.S.I. tax, but 80 per cent of the staff members have elected to maintain their higher level of T.I.A.A. premiums.

Q.—A number of our staff members have outside jobs; what about them? And what about persons who transfer

from one college to another in the middle of the calendar year?

A.—A person can be covered by O.A.S.I. in one or more of his jobs and not in others. If he is covered in more than one job during the calendar year and pays more than his regular social security tax on \$3600 (that is, more than \$54 a year at present), he can receive a refund of the excess. However, neither of his employers can receive a refund. This is true whether the jobs in covered employment are held concurrently or consecutively.

Q.—Are food and lodging provided by the college taxable under O.A.S.I.?

A.—Yes. The only difference between income tax withholding and the O.A.S.I. tax is that the value of living quarters and meals furnished to an employee for the convenience of the employer are taxed under O.A.S.I. even though they may be exempt from income tax withholding. Both O.A.S.I. and withholding taxes are reported by the employer on Form 941, Employer's Quarterly Federal Tax Return.

Q.—What immediate effect will O.A.S.I. have on college retirements?

A.—Probably many retirements that might otherwise occur prior to the end of the 1951-52 academic year will be delayed until then so that staff members can obtain their six quarters of coverage. In the past some colleges used a tapering-off period during which teaching loads were reduced, individuals were relieved of extra administrative duties, or placed on a limited research or consulting basis at reduced pay. Such arrangements can qualify a person for O.A.S.I. benefits and, if the salary is \$3600 or more, for full benefits once he retires at or after age 65. Free pensions paid out of the college treasury and for which no work is expected will not qualify a person under O.A.S.I.

Q.—Is it true that most veterans of World War II may be newly insured

under the 1950 amendments to the Social Security Act and yet not know it?

A.—Yes. Quarters of coverage acquired at any time are counted in meeting the new requirements, and as a result of the 1950 amendments veterans are now credited with covered employment at \$160 a month for every month in which they served during World War II. Through June of 1954 the minimum requirement of six quarters will apply, and if a veteran of World War II should die or retire during this period, he might have qualified with as little as 14 months of service. College officers might wish to check or suggest to survivors that they make inquiries in cases of death of veterans on their staff.

Q.—May persons who formerly worked in covered employment also be newly insured?

A.—Yes. Here again the six-quarter minimum applies until June 1954. Deaths or retirements of persons who had previous employment covered by O.A.S.I. after 1936 and before coming to the college or as a part-time job while at the college should be checked to determine possible eligibility.

CONCLUSION

Almost all colleges that can obtain O.A.S.I. coverage for their staff members undoubtedly have done so or will do so soon. At the same time most institutions have strengthened their total provision for old-age incomes by coordinating O.A.S.I. with their existing plan in a manner that provides a satisfactory, and in many cases an excellent, level of benefits.

College officers will continue to have opportunities to help their staff members understand the new O.A.S.I. law and obtain the benefits for which they are eligible. This may place additional work on the business office but it should prove to be most worth while.

Budget Control . . .

. . . will become increasingly important in the months ahead as institutions adjust themselves to high costs and the uncertainties of income in a defense mobilization economy. Paul Walgren of the University of Southern California will suggest in the March issue some of the technics established at his institution to obtain prompt and effective budget control.



Fig. 2—The sorting procedure.

Adapting a system of

KEY SORTING

to college accounting

HARRY M. GROSS Jr.

Treasurer-Business Manager
Case Institute of Technology

THE ALARMING INCREASE IN college operating costs and a prospective decrease in income make it imperative that we develop better procedures for the budgeting and control of expenses. The usual system of allotting each department a round sum of money and then permitting the department to expend such money in any manner it sees fit is not consistent with good management. If we are to make the most efficient use of our income, detailed planning must be done for all activities and their costs. This article briefly describes the general features of a system that we have found effective and economical in its application to accounting problems at Case Institute of Technology, an engineering school with a total enrollment of about 2400 students and an annual income slightly in excess of \$2,000,000.

CHART OF ACCOUNTS

Like many other colleges, Case had traditionally divided the expenses of each of its departments into the following categories:

1. Salaries and wages
2. Supplies and services
3. Books
4. Equipment
5. Travel
6. Repairs
7. Scholarships
8. Telephone and telegraph

Because some of these expense categories were so broad, we found it difficult to interpret comparative figures and to plan accurately for the coming year. We, therefore, expanded our chart of expense accounts from eight to approximately 50 expense categories, of which about 20 are common to all departments on the campus. For example, we broke down the first category, "Salaries and wages," as follows:

11. Instructional staff
12. Administrative and clerical employees
13. Student help
14. Research technicians
15. Maintenance employees
16. Departmental mechanics

Our two years' experience with this expanded chart of expense accounts has resulted in more realistic departmental budgets and better control of expenditures.

NEED FOR NEW SYSTEM

This expansion of each department's expense classifications obviously produced a tremendous increase in the total number of individual accounts that had to be maintained. We found we could no longer manually post the ledgers without substantially increasing the size of the office staff. To cope with this problem, we adopted a key sorting system, which provides many of the advantages of a mechanical system even though it is manually oper-

ated. No expenditure for equipment is required and the increase in cost of needed business forms is not appreciable. The system utilizes special cards upon which accounting data are recorded. These cards, when punched, may be sorted rapidly by various classifications in order to tabulate manually the accounting information. The system is basically simple, though it requires careful attention to detail. The average employee can be taught to operate the system in a matter of days.

HOW SYSTEM WORKS

A hand posted general ledger is maintained. The expense ledger, which supports the current expense control account in the general ledger, consists of distribution cards rather than the conventional ledger sheets. These cards, representing the individual debits and credits to specific expense accounts, are described later in this article. Entries to the general and expense ledgers are made from three sources: accounts payable vouchers, pay rolls, and other journal entries (including cash entry).

ACCOUNTS PAYABLE VOUCHERS

One journal entry is prepared monthly, summarizing all of the charges and credits resulting from the payment of the month's invoices. The individual transactions are recorded on especially designed cards. These

VOUCHER DISTRIBUTION CARD				CASE INSTITUTE OF TECHNOLOGY CLEVELAND, OHIO		FORM # 2	
Austin Coal Co.							
(Commitment Record) →				DEBIT	CREDIT	DEPT & ACCT.	JOURNAL VOUCHER No.
				480.00		152-52	8-190
				VOUCHER NO.		DEPT CHARGED ACCT CHARGED	DISTRIBUTION AMOUNT
(Accounts Payable Record) →				4-281	152-52	480.00	

Fig. 1—Typical distribution card. Especially designed, the holes around the four edges are used for coding, punching and sorting purposes.

cards, which are $7\frac{1}{2}$ by $3\frac{3}{4}$ inches in size, contain holes around the four edges which are used for coding, punching and sorting purposes. Figure 1 shows one of these typical distribution cards.

When a check is to be prepared, a wax carbonized voucher check-set is inserted in the typewriter in the normal manner. A distribution card then is placed behind the check-set so that it is directly back of the carboned portion of the form. As the check is typed and the account distribution information is recorded on the voucher, the voucher number, the account number, and the amount of the charge are recorded automatically by carbon on the card.

The day's cards are accumulated and balanced against the total checks drawn during the day. Next, the voucher and the account numbers are punched in the cards and verified by use of marginal code. This operation requires no more than 10 minutes of working time per day. The punching can be done by a simple keyboard machine (rented) or by a hand punch similar to that used by train conductors.

Normally, each day's distribution cards are accumulated until the end of the month, when they are sorted by department or fund number and then by account. To sort the cards, a special needle, about 14 inches in length, is inserted in the appropriate code hole and then raised. The cards that have been punched in this particular hole will fall out of the stack

of cards. Since more than one digit is involved in the department and account numbers, sequence sorting is required.

When the sorting is complete, all of the cards will be in strict department and account sequence. This sorting, which is extremely rapid and accurate, usually requires no more than 30 minutes' working time of one employee for all the Case distribution cards for the month. Figure 2 illustrates the sorting procedure.

The sorting process permits the summarizing of the charges and credits for each account. Summarizing is done by taking an adding machine tape of the amounts shown on the sorted cards for each account. The totals thus obtained are then used to prepare the summary accounts payable entry for the month.

PAY ROLLS

All our pay-roll authorizations are prepared on special cards. These cards, which are initiated by the department hiring an individual, contain all of the necessary data for a permanent personnel record. Most of the information shown on the authorization is coded and punched in the spaces provided on the four edges of the card. This permits the rapid sorting of the cards for personnel and pay-roll statistical purposes. Figure 3 on the opposite page shows a typical pay-roll authorization card.

At Case, we have weekly, semi-monthly and monthly pay rolls. Since we must guarantee accuracy in the

preparation of these pay rolls, we maintain two types of predetermined controls for each pay roll, one by total amount of gross pay and the other by accounts charged. At the beginning of the year, these controls are set up on ledger sheets. As employees are added and removed, as rates of pay are changed, and as distribution charges are modified throughout the year, the predetermined controls are adjusted. Thus, at the end of any pay period, the normal gross salaries and the normal distribution charges for a particular pay roll are shown on the control sheets for that pay roll. The predetermined controls, of course, must be modified by such variables as overtime pay and deductions for absences from work. The variables, when added to or deducted from the predetermined controls, provide the balancing figures for each pay roll. At first glance, the maintenance of predetermined controls may seem an unnecessary and complicated step; however, we have found that they are not difficult to maintain and that they actually speed up the over-all pay-roll function because they have virtually eliminated pay-roll errors.

The preparation of the pay roll is accomplished through the use of a writing board, an ingenious but simple device that enables us in one operation to post the employee's deduction statement, the pay-roll register, and the individual's permanent earnings record.

Figure 4 on page 28 shows a pay roll in process of preparation on the writing board. Upon completion of the entire pay roll, the register sheets are totaled, summarized and balanced to the predetermined gross pay and sal-

Using the predetermined distribution controls for the various pay rolls, cards are set up for the accounts to be charged. The cards are punched, sorted by accounts, and totaled. As in the case of accounts payable vouchers, one summary journal entry is made for all of the pay rolls for the month. This entry is prepared from the summarized cards.

Approximately 800 pay-roll checks are prepared at Case each month. The work of preparing the weekly, semi-monthly and monthly pay rolls, the distribution of the charges, the stuffing of the check envelopes, and all other directly related operations require the equivalent of one half-time employee.

OTHER JOURNAL ENTRIES

During any month there are, of course, many regular and special journal entries. Since these entries are manually posted to the general ledger, it is not necessary to prepare cards for charges and credits to balance sheet and income accounts. However, when an entry is made to current expense control, the distribution cards are set up for each debit or credit to the specific expense account involved. These cards are accumulated until the

When the books are closed, all of the cards from the three sources (accounts payable, pay rolls, and other journal entries), representing the expense charge for the month, are put together, sorted and totaled by account. The sum of all cards is balanced against the net charge to current expense control, as shown in the general ledger. This completes the operation for the month. On the average, the balancing procedure and the accumulation of expense totals by account require the equivalent of one man's day of work.

PURCHASE ORDER COMMITMENTS

In order that the operating departments may determine the free balances by accounts, the total of outstanding purchase order commitments must be added to actual expenditures for comparison with the budget. To accomplish this, a commitment distribution card is set up by account as each new purchase order is issued. When invoices are paid or when orders are canceled, the commitment cards are

removed from the active files. Partial deliveries are handled through adjustment cards. At the end of the month, the active cards are sorted by account and balanced to determine the amount of outstanding purchase orders applicable to each account. The sorting and balancing operation requires approximately six man-hours of work.

MONTHLY EXPENSE REPORTS

On or before the sixth calendar day of the following month, each department is furnished with a monthly expense analysis report. The prompt issuance of reports results from the speed with which the expense cards can be sorted, totaled, balanced and posted. These monthly expense reports show the following information by department and account: (1) expenses for the current month; (2) expenses for the year to date; (3) outstanding commitments at the month end, and (4) total expenses for the year to date, plus commitments.

The figures for these reports are picked up from the adding machine tapes prepared in summarizing the distribution cards. The typing of the reports is done by two or three clerks.

Fig. 3—Typical pay-roll authorization card. It contains all the necessary data for a permanent personnel record. Most of the information is coded and punched in spaces provided on four edges of the card.

PATROLL DEPT. NO.										EMPLOYEE									
SALARY AUTHORIZATION										CASE INSTITUTE OF TECHNOLOGY - CLEVELAND, OHIO FORM K-3 TO BE FILLED IN AND FORWARDED TO THE PRESIDENT'S OFFICE IN DUPLICATE									
NAME Newhardt, Charles F.					CODE NO. 6765-W					<input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE									
ADDRESS 3455 Arden Rd.					DEPARTMENT NO. 122					<input checked="" type="checkbox"/> MARRIED <input type="checkbox"/> SINGLE									
Shaker Heights, Ohio					TELEPHONE LO 1-4820														
POSITION Instructor of Chemical Engineering.																			
REMARKS:																			
Deposit check to Mr. Newhardt's account in Cleveland Savings Institute.																			
CHARGE TO:										LEAVE BLANK IF INDEFINITE APPT.									
DEPT. NO.		ACCOUNT NO.		STARTING DATE		TERMINATE		NO. OF MONTHS TO BE EMPLOYED		ANNUAL RATE		SALARY TO BE PAID							
122		11		9/2/49		6/30/50		10		3300 --		MONTHLY 330 --		SEMI-MO.					
DATE POSTED										PRESIDENT'S SIGNATURE									
DEPT. HEAD'S SIGNATURE																			
BALANCE SHEET ACCOUNT										DEPARTMENT CHARGED									
ACCOUNT CHARGED										CHARGED TO									



Fig. 4—Pay roll in the process of preparation on the writing board.

Errors are minimized by add-checking the report sheets. The preparation of some 90 reports, covering the operating departments and our research contracts, takes the full time of two or three clerks and two checkers for about a day and a half; this is the most time-consuming step in the procedure.

The reports are filed in binders so that the expenses for the current month may be compared readily with those for the previous months of the

school year and with the departmental budget for the year. Figure 5 shows the reports for a year's operations taken from a typical expense binder.

RESULTS

On the basis of two years of experience with a key sorting system, we have found that we have attained the following benefits:

1. We have been able to modernize our accounting system to meet all of

the increasing demands on the college's business office without any capital expenditure.

2. We can provide more nearly accurate and more comprehensive information to the various departments and to the administrative officers than was previously possible.

3. Despite a greatly increased volume of work and the addition of a number of new functions, the business office actually has reduced the number of its employees.

4. We have been able to furnish accurate reports to our various departments by the sixth calendar day of the month, enabling them to have the reports when they are of most value.

5. By giving the significant figures in greater detail, we can compare specific expenses from month to month and can forecast with greater accuracy the entire expenses of any department. The end result, therefore, is a realistic budget rather than a vague estimate of probable expenses.

6. We have been able to practice strict control of expenditures within the budget with the result that over-expenditures have been virtually eliminated.

On the basis of our experience, we believe that a key sorting system, if properly adapted, provides an efficient, accurate and flexible system of accounting for the small college.

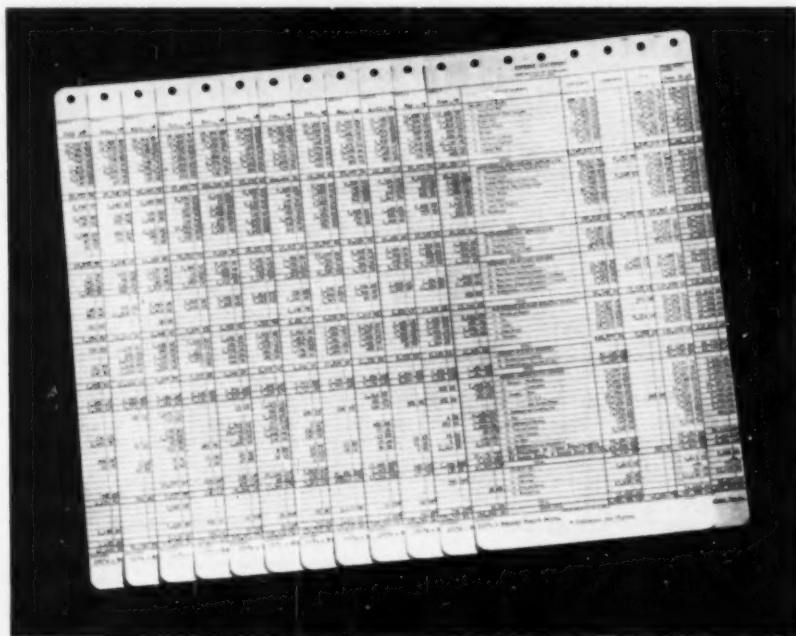


Fig. 5—Reports for a year's operations taken from a typical expense binder.



Service ideals are not jeopardized, yet

CAMPUS STORE PAYS ITS WAY

NO MACHINE-MADE POLICY CAN BE superimposed upon so varied and sensitive an area as the college store. Workers who have grown up along with the project often think nothing can be done to achieve consistency of operation. The situation in many campus stores is so fraught with vague dictums from the uncertain past that the tendency is to go to any length to avoid the frictions of the moment.

Every case becomes a law unto itself. Daily irritations and inequities then grow into another year of minimum service and maximum financial hazard. Any improvement depends upon the formulation of a definite campus store policy that can be published by the administrative officials of the school.

Any competent manager, or even a good student sales clerk, will be able to point out four or five basic abuses that are germane to the college store project. Institutions enrolling about 1200 students will probably find that the list reads something like this:

1. Faculty, students and other patrons may have the idea that the purchase

S. J. WASSOM
Manager, College Bookstore
Grinnell College, Grinnell, Iowa

price of a textbook or other item of merchandise represents an unseemly profit that could well be cut in half.

2. Local authors may feel that the campus store exists for the purpose of absorbing the publisher's initial quota of their books. They also may assign any profits to some type of welfare fund, expecting the store to donate sales personnel and bookkeeping services.

3. Occasionally, a faculty member attempts to run a student supply service of his own, giving rise to abuses not immediately detected by college officials.

4. Prices quoted directly to professors by the publishers may give a false impression by omitting mention of transportation fees and other charges. The bookstore must then sell at invoice cost or be accused of profiteering.

5. Students and faculty members who have had no sales experience or business background do not under-

stand the markup necessary for any type of campus store if it is to be self-supporting. They fail to take into consideration the amount of benefit resulting to the college and to student sales personnel from any profits that may be made.

6. Professors without practical experience in the bookstore business may take it for granted that books will be available on a moment's notice, or they may change their minds about using a certain textbook after the books arrive and have been sold to the students in good faith.

7. Charge accounts that are allowed to run indefinitely may prove troublesome in a store not protected by a definite policy.

Even though the profit motive is subordinate to the service ideal in the properly administered college store, a fair and sensible over-all business policy will solve many problems at the source and will give the entire enterprise a wholesome sense of direction.

First of all, the manager must formulate a concise, accurate, well documented list of areas that need to be

adjusted, with practical suggestions for achieving results, before top administrators of the college can be expected to give time to the problem.

Second, administrative officials upon whom the manager depends for authority must be men who combine educational idealism with practical business judgment. They will understand that a statement of policy issued by the president will ensure a helpful and successful year for all concerned. In turn, they will introduce an educative procedure in regard to the reasons for the various items in the policy.

Upon the solid basis of these features, a policy can be announced that will meet the needs of all who depend upon the college store as well as of those who serve it. Patrons will cooperate in following a procedure that has been reviewed and authorized by the president and the business manager, if the policy has been formulated after careful study of local conditions. When everyone knows exactly what is permissible, sales people in the store can give good service because they can

make rapid and accurate decisions that are fair to all patrons.

The first provision of the present policy states that all books and class aids shall be handled by the college store. Special permission must be obtained for the sale of any kind of supplies by the classroom instructor.

The second provision requires faculty members to place book orders at least 30 days prior to the end of the semester. Orders once placed may not be rescinded unless the course has been discontinued or there is not an adequate enrollment for it. In that event, the professor may be asked to explain the situation to the publisher so that the store may return unused copies without great financial loss.

Departments or individual members of the faculty must obtain agreement from the bookstore management before ordering books or materials to be distributed by the store. This provision is very important in a store that has limited storage space.

Special materials prepared by the faculty for sale through the store are

referred first to a faculty editorial committee on publications. Production problems are resolved before arrangements are made for publication. Final arrangements are usually made through conferences with the president and the business manager.

The basic policy now in force permits a charge of at least 20 per cent of the selling price for the service of handling the storage and distribution of books, manuscripts and other materials written by the local faculty. A larger discount may be allowed whenever special conditions require it.

Charge accounts at the store are protected by an arrangement with the business office whereby it may deduct the amount due to the store when making out the ensuing month's check for a faculty member whose accounts in the store are in excess of \$25 and are unpaid on the 20th of the month in which the statement of account is rendered. Faculty cooperation also is asked in withholding students' grades and credits pending the payment by them of overdue accounts at the store.

Continuing Survey of Building Costs Conducted by College and University Business

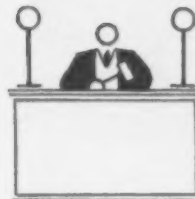
Name of Institution	Function of Building	Type of Construction	Total Cost	Total Colgate	Cubic Feet	Contract Cost For:				Approximate Wage Rate						Date of Contract Award
						General Construction	Heating	Plumbing	Electrical	Electricians	Bricklayers	Masons	Plumbers	Carpenters		
Univ. of Texas	Journalism Bldg.	Fireproof; concrete frame; brick and stone exterior; tile roof	\$ 571,254*	384,000	\$1.40	\$ 378,753	\$ 94,650	\$ 19,350	\$ 48,166	\$2.25	\$2.50	\$2.50	\$2.25	\$1.90	May '50	
Univ. of Texas	Service Bldg.	Fireproof; concrete frame; brick exterior with stone trim; flat roof with tile capping	768,937*	664,807	0.88	549,673	47,175	48,735	80,773	2.25	2.50	2.50	2.25	1.90	May '50	
Univ. of Texas	Classroom Bldg.	Concrete frame; brick and stone exterior; fireproof	1,482,154	1,770,000	0.84	817,967	297,017	140,970	226,210	2.25	2.50	2.50	2.25	1.90	May '50	
Univ. of Texas	Pharmacy Bldg.	Concrete frame; brick and stone exterior; fireproof	550,986	710,900	0.77	236,228	159,800	76,410	76,558	2.25	2.50	2.50	2.25	1.90	May '50	
Univ. of Calif. Davis	Home Economics Bldg.	Reinforced concrete	1,000,000	735,153	1.32	556,000	129,392	57,850	97,397	2.50	2.81	2.81	2.50	2.17	Jan. '51	
Alabama College, Montevallo	Swimming Pool	Reinforced concrete and masonry	132,900	17,000	7.02	86,900	10,000	30,000	6,000	1.50	2.75	2.75	2.25	1.75	Nov. '50	
Rhode Island St. Coll., Kingston	Gymnasium	Fireproof	1,487,126	2,000,248	0.74	1,112,370	137,290	105,000	132,486	2.25	2.77	2.77	2.40	2.25	Dec. '50	
Quincy College Quincy, Ill.	Gymnasium; Boiler Room	Steel frame; masonry walls; steel roof deck; wood floor	201,484	661,300	0.31	172,132	13,265	11,331	4,755	2.37	3.00	—	3.25	2.25	June '50	
Univ. of Virginia	Laboratory and Classrooms	Brick backed w/c block; steel frame; fireproof; concrete floor	917,000	673,253	1.90	510,081	103,733	—	48,742	2.17	3.00	1.75	2.25	1.75	July '50	
Univ. of Pennsylvania Hospital	Outpatient, Diagnostic Clinic, Library, Auditorium	Reinforced concrete; brick and stone exterior	6,160,000	1,075,000	3.23	3,284,400	175,500	351,600	876,900	2.87	3.00	—	2.75	2.40	June '50	
State Teachers College, Salisbury, Md.	Dormitory	Fire resistant brick; slate roof; reinforced concrete	253,075	301,999	0.83	Not Available	Not Available	Not Available	Not Available	1.54	2.50	2.75	1.41	1.44	June '50	
Georgia Southwestern College	Dormitory	Brick	136,142	General Contractor Has Complete Information						Unknown						Sept. '50

*Includes architects' fees.

POWER OF STATE AUDITOR TO CONTROL DISBURSEMENTS OF COLLEGES

T. E. BLACKWELL

Treasurer, Washington University
St. Louis



A RECENT DECISION¹ OF THE SUPREME court of appeals of West Virginia is an example of the refusal of the courts to permit state auditors and other elective state officials to control the disbursements of state supported institutions of higher education.

On March 20, 1950, Dr. C. T. Neff Jr., vice president and comptroller of West Virginia University, signed several requisitions, drawn on a special fund, for the purpose of paying certain invoices covering the cost of hospitalization and medical treatment of J. Robert Murphy, a student of the university, injured while participating as a member of its football team in an intercollegiate athletic contest. The fund on which these requisitions were drawn consisted of money received from gate receipts derived from general admission charges to the games, compulsory student athletic fees, and guarantees paid on behalf of competing teams.

REFUSES TO PAY

The auditor for the state of West Virginia refused to honor these requisitions on the grounds that there was no balance available in the fund, since the reported profit of \$535.92 for the year for intercollegiate athletics was not a true profit, in view of the fact that the salary of the athletic director and those of the coaches were not charged against this fund but were paid, in part, from the budget of the department of physical education. The board of governors of West Virginia petitioned the court to issue a pre-emptory writ of mandamus to compel the auditor to pay the claims. The court, in granting the writ, made the

following comments in its syllabus of the case:

"In the absence of an abuse of discretion on the part of the board of governors of West Virginia University, the auditor for the state of West Virginia has a mandatory duty to honor requisitions of the board to cover payment of the cost of medical and hospital services rendered to a student athlete, injured in an intercollegiate athletic contest."

COURT REBUKES AUDITOR

In 1939, the same state auditor had refused to honor a voucher for the payment of printing for the athletic department of West Virginia University. The court,² in directing him to pay the claim, rebuked him for this attempt to substitute his own judgment for that of the university administration, in the following words: "No one can successfully assert that a proper athletic program is not appropriate to a great educational institution."

These two West Virginia cases have an interesting parallel in a 1949 decision of the supreme court of Arizona.³ The court granted a writ of mandamus directed to Ana Frohmler, state auditor, commanding her to issue warrants in payment of obligations incurred by the board of regents of the University of Arizona in the inauguration of a new president of the university, Dr. J. Byron McCormick. The claims were presented to the state auditor twice for payment and were rejected each time. They were then presented to the gov-

ernor of the state, who also rejected them. Fortunately for the dignity of the state of Arizona, Chief Justice La Prade and the majority of his associates on the bench had a broader concept of the proper educational functions of a university. The court, in granting the writ, had the following to say to the auditor and to the governor of Arizona:

"In determining whether expenses incurred as incident to the inauguration of a new president of the university are of a kind authorized by law, it should be considered what the event is of inducting into office a new president, the purpose to be served by such a ceremony, and the practice observed by similar institutions with regard to a like event. The custom in other seats of learning need not at all set a pattern for us, nor should we justify a formal and ceremonious inauguration of a president of the university upon the ground that this is what is done at Harvard or Yale; but any general acceptance of the custom, countrywide in extent, must indicate some useful and not merely an idle purpose.

"By common knowledge, the custom is generally followed. . . . A failure to avail the university of the opportunity to signalize the importance of this event in its life when the reins of control are transferred to a new president might more readily subject the board of control to a charge of laxity and indifference to the psychological values inherent in the occasion than with extravagance for providing for a ceremonious celebration of so important an event. We have no hesitancy in holding that reasonable expenditures for the purpose exhibited by these claims fall in the category of expenditure for a public purpose."

¹Board of Governors of West Virginia v. Sims, Auditor, 57 S.E. 2d. 705 (1950).

²Glover v. Sims, Auditor, 3 S.E. 2d. 612 (1939).

³Board of Regents of the University and State Colleges of Arizona v. Frohmler, State Auditor, 208 P.2d. 833.



Monitoring panels. Lower panel monitors separate floors of Gray dormitory. Middle panel monitors fire by separate buildings. Upper panel monitors pneumatic and electrical trouble by separate buildings.

DETECTING FIRE

is simple problem at girls' college

LLOYD R. HOILMAN

Director of Buildings and Grounds
Sweet Briar College, Va.

SWEET BRIAR COLLEGE RECENTLY installed in all six residence halls and the refectory a complete and modern fire detection and alarm system at a cost of about \$30,000.

The installation, known as a rate-of-rise system, operates on the basic principle of the expansion of air when it comes in contact with heat.

Sweet Briar's system is unique in that this installation is the first of its kind in which each separate building

protected by the system is monitored to one central point, the telephone switchboard. This switchboard is operated 24 hours daily.

The rate-of-rise system is so designed and adjusted that any sudden change in temperature caused by heat, sufficient to change the temperature in a room 3 degrees in one minute, immediately will put the system into operation. This condition is true regardless of the existing room temper-

atures. The installation is one of hollow insulated tubing with such auxiliary devices as tanks and diaphragms, with necessary electrical relays and controls to make it fully automatic.

The system is installed in complete circuits. The National Board of Fire Underwriters' code restricts each circuit to a maximum of 1000 feet or 20 areas with a minimum of 5 per cent of a circuit to each area, and in no area should there be less than the tubing equivalent of 25 feet. Near the center of each circuit a test device is installed. The test device is so located in order that the time element of detection is approximately the same from either side of the circuit. The tubing and detector together make it possible for the system to breathe, so to speak.

Variations in room temperatures in changing from cool to warm to hot or vice versa cause varied changes of air in the tubing; diaphragms permit the adjustment of air in the system, but when the air change is as rapid as that caused by a 3 degree rise in one minute the diaphragm will not adjust. Electric contact is made and the alarm is set off. The change in temperatures resulting from the initial turning of heat into a building or room is by no means as rapid as 3 degrees in a minute so the system compensates itself to these changes.

The system is supervised electrically and pneumatically at all times. Plastic insulation on the tubing permits the use of a sneak-current of a very low voltage to be kept on the circuit, and obviously any break in the tubing will be recorded immediately by a trouble bell. Likewise, a break in the tubing will cause an excessive adjustment of air which the diaphragms will not compensate for and the trouble bell is again put into operation.

In event of electric power failure the system is not hampered. Storage batteries automatically take over until power is restored. The storage batteries are equipped with automatic recharging units. Each building is so equipped.

The protection afforded within each building is complete and extensive.

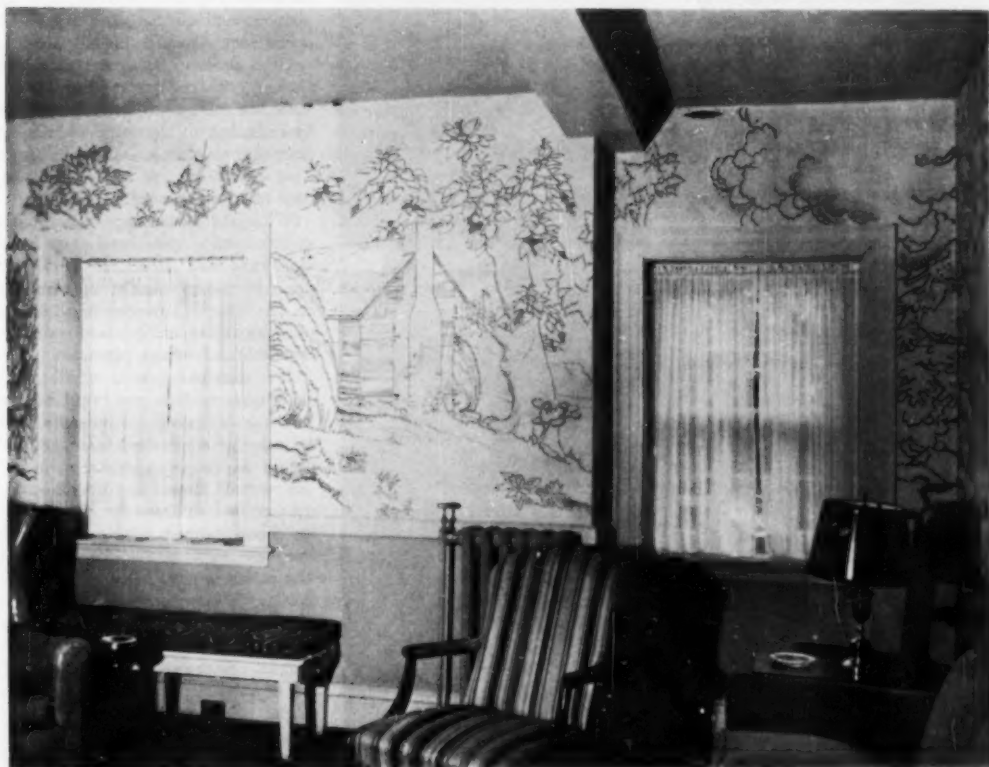
Fire detection tubing has been installed in all residence hall rooms, closets, corridors, janitors' closets, stairways, attics; where 2 feet or more of space occurs below the ground floor levels the tubing has been installed there also.

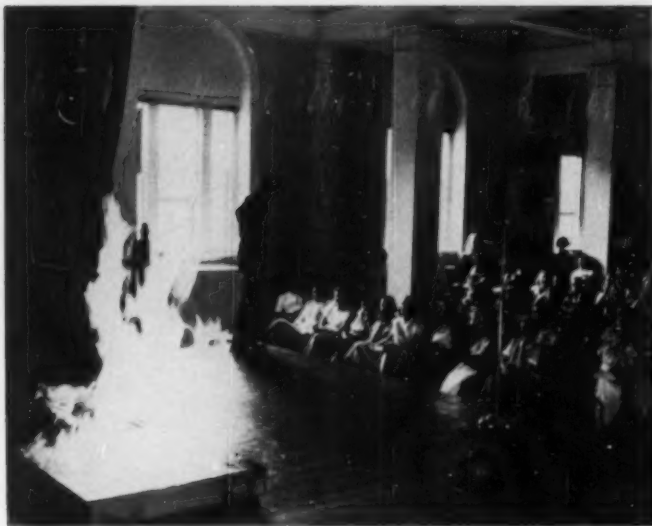
On the main entrance floor of each residence hall, in a prominent location, is installed a monitoring panel. Each floor and attic are indicated by a red pilot light and metal name plate. In case of trouble on a circuit the pilot is lighted and the trouble bell rings. It is possible at a glance to determine the floor involved and go directly to it. Whenever a circuit within a building is in trouble, this fact is relayed to the central panel above the telephone switchboard, where it is indicated by a buzzer, and here on a monitoring panel a red pilot indicates the building involved.

In case of fire, which is detected by the 3 degree temperature rise in one minute, a general alarm is set off within the building and again the floor concerned is indicated by the red pilot. Simultaneously with a general alarm



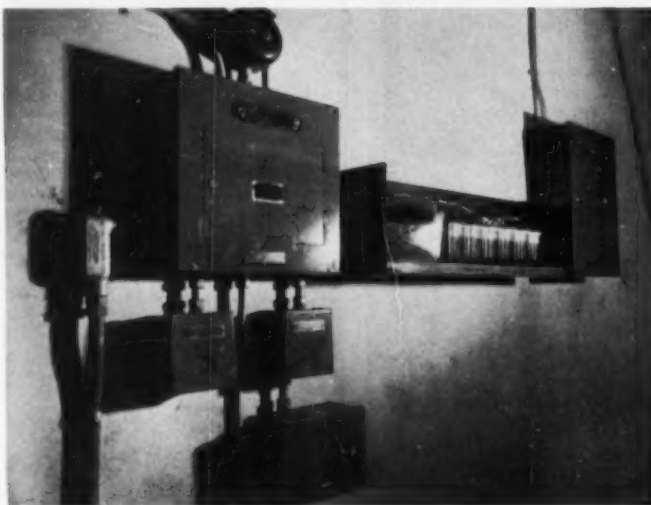
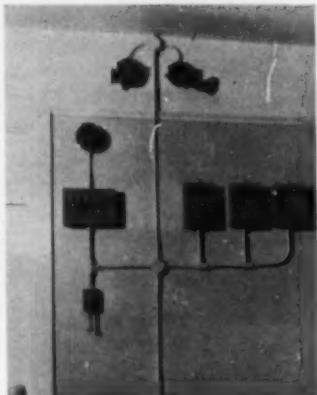
Above: Tubing and tank are very inconspicuous when painted to conform to the wood cornice. Below: Student parlor. Test device on right of ceiling beam, tank on left. Although unpainted, the tubing is barely visible at the ceiling line.





Demonstration given to students, using approved Underwriters' fire pan.

Right: Typical monitoring panel and controls on main entrance floor of each residence hall. Cabinets to right house detectors. Monitoring panel with pilots monitors separate floors. Electric horns and break-glass box with hammer are also shown. Below: Main control panel, auxiliary batteries, rectifier. Lower cabinet, motorized relay for campus siren.



within any building, the alarm is instantly relayed to the central panel where not only the building concerned is indicated by the red pilot but the campus siren is operated by a motorized relay which controls the siren in cycles of 4 seconds on and off.

Though the system is automatic, at each main entrance a break-glass with hammer is provided, and persons entering the building upon discovering a flash fire immediately can set off an alarm.

Another rather flexible feature of the system is that student fire drills may be held as frequently as desired. They may take place in any separate residence hall or any combination of residence halls. In the execution of student fire drills, I strongly recommend a policy similar to that established here: that only authorized college personnel trip the alarm and that at no time shall students tamper with or operate the system.

Here at Sweet Briar, and no doubt at many other colleges and institutions, scheduled college activities are signaled by bells, but to alert the students in case of fire electric horns are used. Two such horns are located on each floor of a residence hall.

While the system appears to be an involved one, operational tests both electrically and pneumatically can be made by the simple flip of a switch on any floor of any building. These tests can and should be made regularly by authorized college personnel.

The installation as a whole is a fairly inconspicuous one, even before painting. Painting, incidentally, increases the contact surface and increases the detection efficiency; in no way will it hamper the operation of the system. Where the installation has been painted it is difficult to observe.

A pertinent fact of interest that may arise is: Will such an installation reduce the insurance premium? Where it is feasible and possible to install a signal device in a city or municipal fire department which is manned by regular paid firemen, premium reductions ranging from 8 to 22 per cent have been authorized.

How should the

PURCHASING AGENT *budget his time?*

D. FRANCIS FINN

Purchasing Agent
Brown University

QUALITY AND SERVICE EXERCISE A large part in making purchasing decisions. A purchasing department often can be of more use by providing the right quality of item than by any saving on the price. But since none of us can be experts on everything we buy, we should devote a larger proportion of our time to those items on which we spend larger sums, unless it is an item in which the quality is definitely fixed and the price is not competitive.

QUESTIONS I ASKED MYSELF

Questions as to whether the dollar volume of purchases was related to the amount of time and energy I have been spending on a group of items helped prompt a statistical survey at Brown University. These were:

1. Do I spend my time on the items that are actually important to the university?

2. Do salesmen influence me into spending a great deal of time and thought in relatively unimportant fields?

3. Are there competitive items in important volume on which I am spending little purchasing time?

4. Are there other factors besides dollar volume that will make a group of items important?

Perhaps some purchasing agents already know the answers; others may feel the answers are obvious and that such a survey is worthless; some may find it food for thought; to me it has been interesting and constructive.

I discovered that the largest single group of items on which Brown University spent money that was under the control of the purchasing department, theoretically at least, was the utilities—gas, electricity, water and telephone. I say theoretically as this group of services is relatively removed from competition, having fixed rates. Yet, a study of the telephone structure at Brown two years ago resulted in the

saving of more than \$2000 a year. Our local electric company has made recommendations for tying in various buildings on one meter, resulting in better rates and savings of \$900 a year on three newly completed buildings. Therefore, even in this field the purchasing agent should be watchful. Our total purchases of these services amounted to \$138,285.49. These figures are based on the 1949-50 fiscal year. Other items in the purchase of which we take a more active part amounted to \$750,000.

The main category is fuel purchases, which amounted to \$105,000 or 14 per cent of purchases excluding utilities.

Excluding the purchase of fuel, four groups of items comprise 42 per cent of our dollar volume, and the balance of 44 per cent contains several hundred categories, only one of which can claim more than 2 per cent of the total dollar volume.

The most important single group is outside contracts, comprising a total of 25 per cent, divided as follows: 12.9

The second category surprised us considerably. It is printing, which is 10.9 per cent of our yearly dollar volume. At Brown, the purchasing department is responsible for printing. Quality and price vary greatly in this field. Competition is keen and sources are plentiful. Furthermore, many members of the university staff involved in preparing publications actually know little about printing and are willing to have the responsibility of negotiation and selection taken over by someone else.

INTERESTING FACTS COME OUT

These figures proved to me the need of my spending more time in the printing field, in studying the types and quality of work we need, in developing accurate and precise specifications, and in developing sources for the different types of printing, such as brochures, catalogs, alumni magazines, daily newspapers, weekly bulletins, and programs, to numerate a few of the types of printing we buy.

Next in importance is paper products, which, of course, is closely connected with the purchase of printing. It amounts to 3.3 per cent of our total purchases. Laundry and cleaning amount to 2.8 per cent. This includes linen supplies to the students, and coats and aprons for the dining rooms, and amounts in dollars and cents to \$20,506.33.

All these categories are competitive; because they are limited fields, a greater concentration of effort should accomplish more per labor hour expended.

The remainder of our purchases, amounting to 44 per cent, starts with scientific equipment, which includes many categories, at 7.7 per cent; then athletics at 2.14 per cent, or \$16,000; paint, \$12,000; lumber, \$11,394; kitchen equipment, \$10,000; radio and electronics, \$9653; hardware, \$8108; electrical supplies, \$8000; office supplies, \$8500; flooring, \$8459; photographic supplies, \$6000; plumbing



per cent, general contracts; 5.3 per cent, plumbing contracts; 4.2 per cent, roofing contracts; 2.3 per cent, painting contracts, and the rest, miscellaneous. This figure does not include new construction, but only maintenance and repair, alterations and additions. It is abnormally high in that we have delayed both maintenance and major reconstruction caused by our expansion, and yet it has run high since the war and will for at least several more years.

From an address given at the N.A.E.B. regional meeting, Crawford Notch, N.H., 1950.

supplies, \$5000; grounds materials, \$3063; envelopes, \$2400.

The survey reveals interesting facts. Flooring, such as asphalt tile, costs us \$8459, and this amount is spent in about 20 orders a year, whereas, on plumbing supplies, only \$5000 of expenditures takes several hundred orders a year. Soaps, excluding those used in the dining rooms, amount to only \$1200 a year. Cheesecloth and washing rags, on the other hand, amount to \$1800. Should more time, therefore, be devoted to these concentrated purchases on cheesecloth and washing rags and less effort be expended on soaps? A further interesting fact is that only three salesmen call on me in a year to sell cheesecloth and washing rags, whereas at least 30 call in regard to janitor soaps, pine oil, and such things. In the same way, we spend \$1800 a year on wax, and yet much more time has been spent in discussing that item than in discussing cheesecloth and washing rags. Even light bulbs amount to \$2554. Further illustrations show that chair rental for Brown costs \$1450 a year and rodent extermination, \$1514.

An interesting sidelight is the amount of purchases we make through the Educational and Institutional Co-operative. Out of total purchases of \$8400, six items comprise the principal volume. These are (1) ribbons and stencils for typewriters and adding machines, \$2163; (2) furniture (mostly steel), \$2150; (3) wax, \$1800; (4) paint, \$1587; (5) silverware, \$600; (6) library cards, \$138. This shows we should be making a more concentrated effort to take advantage of the E. & I. contracts.

Our total expenditures for dictating equipment, including maintenance and equipment, amounted to \$578. Here is a field on which we have spent much time in discussion and sales interviews and in rating equipment. Yet, we find it is very negligible in our over-all purchasing program.

This analysis is only a point of departure. We hope to use it in many cases as a purchasing aid. The most important single application will be a better and more conscious rationing of our time on those lines that will result in greater return for our effort. It also throws light on the seriousness of the small-order problem by giving facts as to just how bad it is. By analyzing our purchases we can put our time to more profitable use and be of more service to our institution.

Four steps for department heads in

SIMPLIFYING WORK

DURING THE EARLY PART OF WORLD War II, the Training Within Industry service of the War Manpower Commission developed several fundamental training programs which are easily adaptable to the needs of the business offices of educational institutions. One of these was the job methods training program.

J.M.T. has as its purpose "to help the supervisor produce greater quantities of quality products in less time, by making the best use of manpower, machines and materials available."* Only slight alterations are needed to restate that purpose to meet the problem of the college business officer or, in fact, of any supervisor who deals with office routines rather than with industrial production problems. Thus revised, it can be stated as "to help the supervisor produce greater volume of accurate work in less time, by making the best use of personnel and equipment available."

Job methods is essentially a means of analyzing work procedures to eliminate unnecessary detail and lost motion and to institute better ways of doing the job. It was designed to nurture in supervisors a constructively critical attitude toward their work, and it grew into a specific method of developing improvements.

The technic involves the analysis of jobs or procedures according to a four-step process:

Step 1. Break Down the Job

1. List all details of the job or procedure exactly as they are done by the present method.
2. Be sure details include handling of *all* papers, use of office machines, and handwork.

*The Training Within Industry Report, 1940-45, U.S. Government Printing Office, 1945, p. 37.

Step 2. Question Every Detail

1. Use these types of questions:
Why is it necessary?
What is its purpose?
Where should it be done?
When should it be done?
Who is best qualified to do it?
How is the "best way" to do it?
2. Also question office machines and equipment used, forms and form design, office layout, and records maintained.

Step 3. Develop the New Method

1. Eliminate unnecessary details.
2. Combine details when practical.
3. Rearrange for better sequence.
4. Simplify all necessary details:
Arrange flow of work to minimize cross flows, duplication of effort, involved processes.
Get materials into proper places for easy access.
Rearrange office layout to help even flow of work.
Redesign forms used.
Investigate new models and types of office machines and equipment.
Reassign tasks to provide best use of abilities.
5. Work out your ideas with others.
6. Put your proposed new method in writing.

Step 4. Apply the New Method

1. Sell your proposal to your superiors.
2. Sell your new method to your staff.
3. Get final approval of all concerned with policies, forms, procedures.
4. Put the new method to work.
Use it until a better method is developed.
5. Give credit where credit is due.
The first step, "break down the job," is nearly self-explanatory. As an aid

PROCEDURES

HAROLD T. PORTER

Former Purchasing Agent
Tulane University, New Orleans

in obtaining this information in workable form, it is suggested that a three-column analysis sheet be used. The heading can show the department, name of the operation, date, name of the person making the analysis, and any other pertinent data desired. The first column should be headed "list of details for present method"; the second is "notes—knacks, reminders, distances, time used, and so forth," and the third is "ideas—write them down, don't trust your memory."

The supervisor should examine the processes firsthand, talk to the people performing the various tasks, and be particularly careful that he lists *all* the small details *exactly* as they are done by the present method.

In the second step, "question every detail," the order of the questions is important. Asking "how" before "why" would be a waste of time, because the "why" may lead to the conclusion that the particular detail is unnecessary and should be eliminated. In order to differentiate between "why is it necessary" and "what is its purpose," the latter should be applied almost exclusively to questions of quality or accuracy required.

Also in applying these analytical questions to various steps in the procedure, the supervisor will find it helpful to examine the verb which is normally the first word in the detail. For example, take an operation in which two details are "pick up two sheets of carbon paper" and "insert them into form." The first step in the questioning process is to ask "why is it necessary?" If the analyst asks "why is it necessary to pick up the carbon paper?" the answer would probably be "in order to insert it into the form." If he asks only "why is it necessary to pick up?" he is led into considering the possibility of having the form

made up with carbon paper already inserted.

Step 3, "develop the new method," is the point at which the results of the analysis made in the second step are combined with the ideas which the supervisor has had and which have been suggested to him by the people who have been contacted in the process of making the analysis. After the unnecessary details have been eliminated, the remaining essentials are studied to see whether they can be combined, rearranged and simplified. New equipment and methods should be investigated to see whether they are practical for the particular problem, and forms should be analyzed and simplified where possible.

During this development phase, it is also important for the supervisor to work out his ideas with others, particularly those who will be directly concerned with the new method or procedure. The most practical comments and suggestions can come from the persons most familiar with the problems and difficulties, if they are approached in a manner that wins their confidence and cooperation. Furthermore, the new procedure will be easier to put into operation if many persons feel that they had an integral part in its development and have some pride of authorship in the result.

It is essential that the new method be reduced to writing before it can be submitted to superior officers for their approval or put into operation. Human powers of oral explanation and understanding being what they are, the verbal proposal is frequently misunderstood or misinterpreted by those who hear it, all of the listeners having slightly different conceptions, none of which agrees perfectly with the ideas of the speaker. Also, the mere process of writing requires that the proposal be clearly thought through, thus helping the supervisor to clarify some of his own thinking and to present a complete procedure.

Step 4, "apply the new method," gets the proposal through the stages of approval and acceptance and into actual operation. In approaching a superior to get his approval and cooperation, the supervisor may find it necessary to use a great deal of tact, for the superior may have had a hand in the development of the old method and may not readily agree that there is need for a change.

In selling the new method to the staff members, care should be exer-

cised to see that none of them interprets the change as a criticism of his past activities or as a reflection on his abilities. Otherwise, an attitude of resistance will be built up that will subject the new method to grudging acceptance at best.

After all the persons responsible for or interested in policies, forms and procedures have given their approval, the new method should be put into use. It should be installed carefully and its operation checked closely until the staff is well versed in it, but it should be used only until a better method is found.

One of the blind spots in most offices is the tendency to consider procedures as sacred after they have been in use for a few years. The good administrator should be constantly on the alert to investigate new ideas and new methods and to accept those whose value is evident.

GIVE DUE CREDIT

In developing the procedure, in writing it up and in explaining it to his superiors and staff, the supervisor must give credit where credit is due. If he presents his subordinates' ideas as his own he harms them less than he harms himself, for he is certain to create an atmosphere of distrust and dissatisfaction which will be reflected in the work of his unit.

This method of simplifying jobs and procedures obviously does not contain any radical concepts of the principles of job analysis or procedure development. Its value lies in the fact that the technic is summarized for easy reference so that the analyst does not unintentionally omit any of the important steps or considerations.

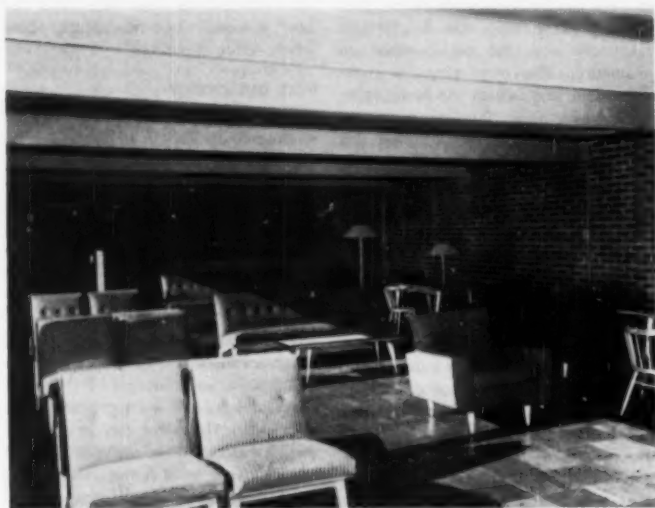
Following the four steps enables the supervisor to develop a critical attitude toward the work of his department which will result in improved methods, and it also keeps him from presenting such proposals until he has worked them out into an integrated procedure. The presentation of incomplete or only partially thought out ideas usually results in a refusal which discourages the supervisor from making further suggestions.

The four-step method, with the investigation and thought which it entails, will help make any supervisor his own job analyst.

The author has a supply of wallet-sized cards on which the four steps are printed. He will be glad to furnish one to anybody interested in having it for easy reference.
—ED.



Above: Adjustable book shelves in the library wing of the Fine Arts Center. In the background, filing cabinets for phonograph records.
Below: Lounge, used for student-faculty receptions and meetings.



FINE ARTS

WINSTON ELTING

Schweikher and Elting, Architects
Roselle, Ill.

THE FINE ARTS CENTER RECENTLY completed at Maryville College, Maryville, Tenn., was built to provide suitable facilities for a yearly increasing enrollment in the fine arts courses, particularly music, in which the college has an unusually high standing.

Before completion of the building, the music and graphic arts courses were hard pressed for space from the standpoints of amount and of location. Music practice rooms, scattered about the campus, were noisy and disturbing. No music hall was available for concerts. The band practiced in the gymnasium. Music teaching studios were located in a building that housed administrative offices and classrooms in addition. No art gallery was available,

and studios for the teaching of graphic arts were inadequate. The growing importance in the curriculum of studies in the fine arts was endangered so a fine arts building was urgently needed.

The college, led by its president, Dr. Ralph Waldo Lloyd, and the donors agreed to the design of a building whose only tie-in with the preponderantly Colonial Georgian inspired buildings was in the use of red brick. This departure from tradition undoubtedly took courage, for in reaching the decision the college served notice that in the future its buildings would be living solutions to present-day problems, that no attempt would be made to cover them with unrelated traditional forms.

The other buildings on the campus are of another generation, and while predominantly Colonial, there are other stylistic influences—Romanesque and Victorian—as well. Many larger and more wealthy institutions lack the courage and conviction necessary to depart from an ivy-covered traditional architecture; their newer buildings are at best compromises which lose all significance in repetition.

The Fine Arts Center is a contemporary solution that depends on no style, past or present. Good buildings are good buildings, regardless of when they were built. They always will be. They have been and always will be copied. There have been and always will be derivations, clichés. These con-



CENTER at Maryville, Tenn.,

provides ample space for arts,

particularly music

stitute a "style," insignificant in the past, now or in the future.

This was the essence of the discussion of what kind of a building the Fine Arts Center should be. The donors and the college relied on the architects to produce a building that conformed to this esthetic standard, which functioned properly, and which could be built within the budget.

The site is a rolling one lying close to the north and west entrances to the campus. The slope on which the building stands is pronounced, falling away to a secondary street that forms the west boundary of the main campus. The town of Maryville lies beyond. Other principal buildings are to the south and east of the center. There

are no college buildings to the north or west. A new chapel, the basement of which will house the drama school activities, will be built across the roadway to the south.

The requirements of the new building included music practice rooms, music teaching studios, a music hall to seat about 250, classrooms, graphic arts studios, art gallery, library, band rehearsal room, and administrative office. In planning the building these various functions were separated, though related.

The main entrance to the building is by way of the covered walkway below the classrooms to doors at the north end. The interior lobby forms the central junction of the administration,

library, music teaching studio, music practice room, and graphic arts wings. Adjacent to it is a lounge with a small kitchen for student-faculty receptions and meetings. A stairway from the lobby leads to the classrooms above and the music practice rooms and teaching studios. Access to the graphic arts studios is through the art gallery, which is a continuation, at a slightly lower level, of the lobby. Iron gates separate them. Circulation of every activity in the building except for the music hall can be controlled from the administration counter.

The music hall is purposely isolated so that daytime functions will interfere as little as possible with other studies. The hall will be used for practice and rehearsal as well as for concerts. The main entrance and lobby to the music hall are on the south end of the building with direct access from the road. A terrace is provided for gatherings during intermissions, before or after concerts. The music hall contains a fine organ located at the rear of the stage. A small broadcasting room and a control room are provided adjacent to the stage, as the college will soon have its own broadcasting station for chamber, choir, college and visiting artist symphony broadcasts, as well as lectures.

The band rehearsal room is below the music hall stage, and organ practice rooms are provided under the stage of the open air, lawn terraced amphitheater. The amphitheater will be used for concerts and other gatherings in warmer months.

DEFLECT SOUND FROM CAMPUS

The organ practice rooms face away from the campus. The same is true of the music teaching studios which face north. These rooms will be in constant use, and it was necessary to deflect sound from them away from the campus. It seemed desirable to face the music practice rooms in the same direction, but not as a separate parallel wing or as a continuing segment of the music teaching wing, as either of these schemes interfered with other elements, blocked possible expansion, and increased corridor lengths.

Thus to deflect sound away from the studios, the shutter-box, vertical sawtooth lighting was arranged. The small practice room cubicles are of sufficient size for instrumental and piano practice. Two walls are solid brick and two are resilient plaster. Ceilings also are resilient plaster, and the doors are soundproof. Natural ventilation is provided by the vertical strip windows.

The classrooms face east and overlook the campus and toward the north-east to the Great Smoky Mountains. The library faces north and is designed for records and scores as well as art and music books. Adjacent to it are small and large rooms for record playing. The art gallery that leads to the graphic arts studios is lighted from above by long strip skylights along inner and outer walls. The graphic art studios have north light.

The music practice room wing is designed for the future addition of a third floor. All other sections of the building can be expanded independently of one another.

BRICK INSIDE AND OUT

The building is built mainly of load bearing brick walls, brick exposed inside and out; concrete floors on the ground and precast concrete slabs for floors above ground. Girders, columns and beams where required are steel. All structural steel is exposed except the steel truss inside the west wall of the classroom wing. The classroom box is enclosed in redwood and glass to give the appearance of lightness.

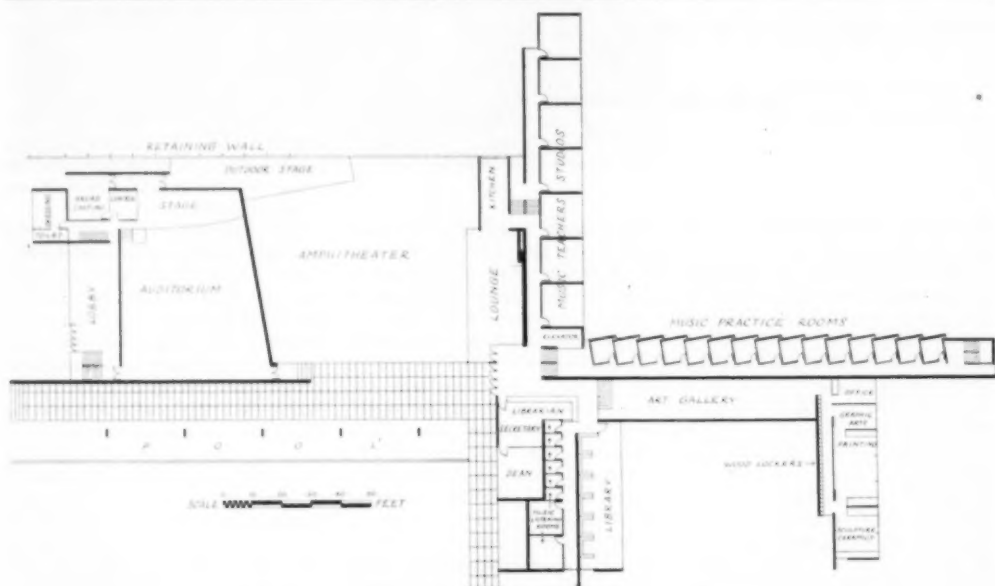
The brick is red, the concrete is light gray and is exposed as floor and ceiling in all sections of the building except in the classroom, lounge and music hall stage where wood floors

are laid over the concrete. Glass is single pane plate in large sheets. Movable windows are awning type projected sash except in the lounge where large sliding sash are used. The redwood is rough sawn and unpainted. All operating sash and doors are fir. Structural steel is painted battleship gray.

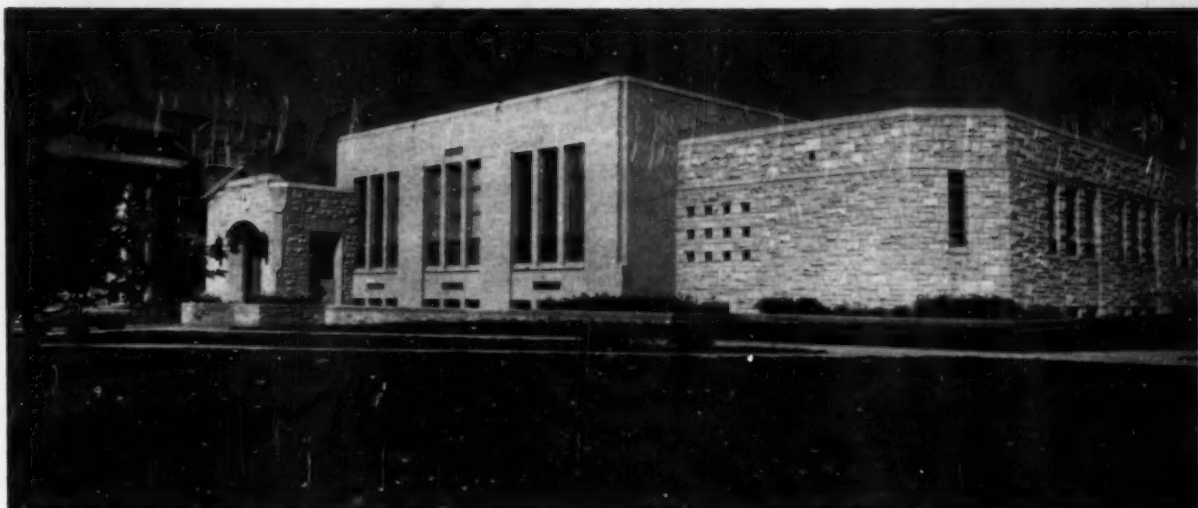
MECHANICAL EQUIPMENT PAINTED

The mechanical equipment and electric wiring, including fixtures, radiators (fin type cast iron), conduit and piping both horizontal and vertical, are exposed and painted the same color as the structural steel. Special care was given to conduit and pipe diagramming, as their installations are an integral part of the architecture. This meant in many cases rectangular pipe installations rather than cross-lot ones, and greater care in installing. These trades reflected no increase in cost, as working in the open offset the extra care involved. For maintenance purposes all heating, plumbing and electrical lines are accessible. Only in the music hall and in toilet rooms is artificial ventilation provided.

Furniture for the building was either designed by the architects or selected with their help. Most of it is wood, red birch with natural finish. Heavy carpeting is used in the music teaching studios for acoustical reasons.



Plan of main levels of Maryville College's Fine Arts Center.



FOOD SERVICE *rates a building of its own* *at the University of Wyoming*

WHEN THE UNIVERSITY OF WYOMING embarked on its \$7,500,000 building program three years ago, one of its major needs was a completely modern food service building, capable of serving a growing university. Today, Knight Hall Food Service, only a year old, has already attracted nationwide attention on two different counts.

Architects throughout the country are studying the building plans carefully, for it has an ultra modern exterior constructed to harmonize with both old and new buildings on the campus, and an interior so built that it is "beautiful enough to be used for a night club," according to one newspaperman.

WINS NATIONAL AWARD

Convenience is not sacrificed for beauty, however, for the building recently won a national grand award based on its streamlined floor plan, labor saving devices, and ability to give speedy service while maintaining the highest standards of sanitation.

Between 1800 and 2400 meals a day are being served regularly and as

many as 4500 can be served without slowing down service.

This is a far cry from the girls' dining room seating 120, and a small cafeteria seating 80, which were constructed on the campus in 1941, giving the university its first permanent food service units. By 1946, an addition was built that could seat another 100. Even with the use of a temporary feeding unit built for World War I and reactivated during the second war, a new unit was a "must" on the list of proposed new buildings.

The \$400,000 cafeteria addition to Knight Hall which was opened in January 1950 is the same native stone and brick construction that has been used on most of the major campus buildings since 1887.

The large cafeteria dining room, with a seating capacity of 576, has two-story spaciousness with many windows reaching to the ceiling. The stainless

metal counters, running the entire length of the room on the east side, are in a low alcove painted dark maroon. Recessed lights form the center of large green circles on the acoustic plaster ceiling. The design created by these overlapping circles is one of the most effective parts of the interior decoration scheme.

STONES FROM OWN QUARRY

The north wall is the original outside stone wall of the old building. The refinished stones, taken from the university's own quarry only 10 miles north of Laramie, combine a variety of soft hues, ranging from lovely tints of pink to light tans. The color scheme, harmonizing with the colors of these Wyoming stones, has given the dining room a restful, pleasing atmosphere, promoting appetite appeal.

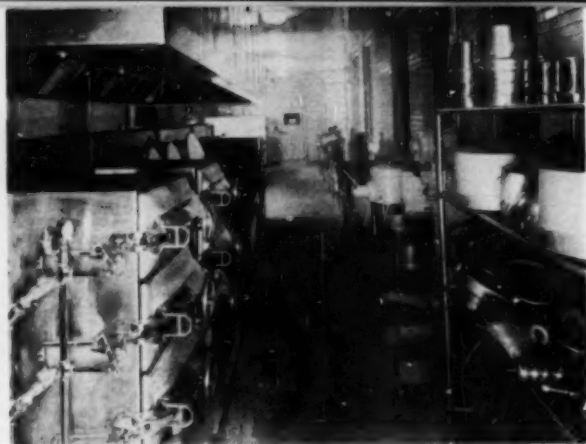
The private dining room for Knight Hall dormitory girls was preserved

RUTH CANTRELL MONROE

Director of Food Service
University of Wyoming, Laramie



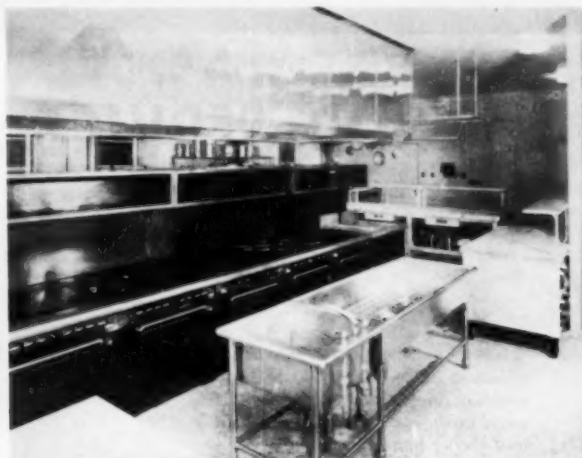
Serving lines in the main cafeteria. The gleaming stainless metal against the dark maroon walls gives an unusual beauty to the University of Wyoming's new dining room.



Steam section under the stainless metal ventilating hood, and a row of sinks for the preparation of vegetables on the right. In the rear can be seen the salad walk-in box.



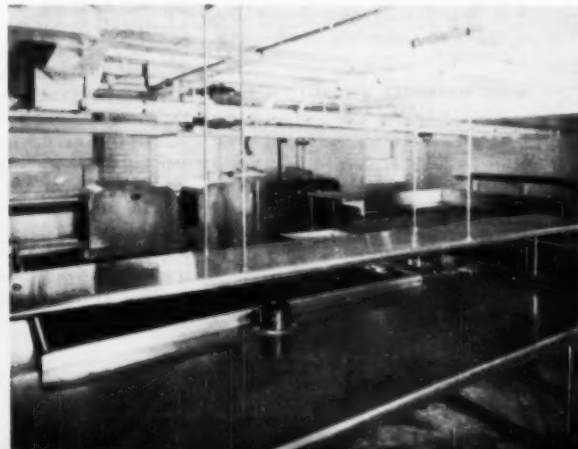
One corner of the butcher shop showing the electric saw, meat tenderizer, and a portion scale in the background.



The range section and stainless metal bain marie in the main kitchen. Conspicuous in the foreground is chef's sink.

Gleaming stainless metal in the bakery and cooling racks on wheels make working there a delight for the pastry cooks.

An all stainless metal dishroom with tile walls makes it not only easy to keep clean, but a pleasure to work in, too.



when the new cafeteria was added, as were the two original dining rooms in the old cafeteria. The girls' dining room is decorated in mauve and green with an attractive parquet floor. Round composition topped tables match the light maple chairs which have mauve plastic padded seats. Ten student waitresses serve the tables of six.

The two cafeteria dining rooms have been remodeled into banquet rooms and are used by reservation only. These rooms have a seating capacity of 200 when used together. Catering, which was done at the Student Union before the new unit was opened, has grown to an important phase of food service, since these two rooms have been put to use for buffets, banquets, receptions and teas.

The central kitchen is a light airy room with windows across the entire east side. Tile walls and a white terrazzo floor make high standards of sanitation an easy achievement. A good ventilating hood of stainless metal over the ranges and steam section, equipped with grease filters and a high powered exhaust fan, keeps all cooking odors and heat out of the room.

Each department has its own walk-in refrigerator and reach-in box. These are cooled by a central compressing system, and a constant watch is kept on proper temperatures. A standby compressor is maintained at all times to switch on automatically for any emergency. This ensures correct temperatures at all times.

Three refrigerators and two hot food warmers are set in the wall between the kitchen and dining room and are accessible from both sides. These receive all food from the kitchen to be used on the main serving lines. This eliminates carrying of food through the doors and keeps food hot or cold, as the case may be.

The bakery, butcher shop, compressor room, garbage room, storerooms and dishwashing room are in the basement. Two elevators and one dumb-waiter give ready accessibility to these rooms. The bakery is fully



Top: Plan of newly completed athletic dormitory kitchen, where meals are prepared and served to those in training. Center: Kitchen serving room. Bottom: Bakery, butcher shop, garbage room, storerooms, compressor room, and the dishwashing room are shown in the basement plan.

equipped with modern machinery and electric ovens to furnish pies, cakes, sweet rolls, doughnuts, and other desserts for the entire food service. Our bakers are capable of furnishing all demands for catering from simple cookies to fancy wedding cakes.

The butcher shop also is equipped with the latest conveniences from an electric meat saw to a meat tenderizer and a portion scale. Every piece of meat that comes to the kitchen is scaled to the proper size and ready for the cooks to prepare. Portion control is an important feature in this department. A large walk-in refrigerator and a deep-freeze room ensure the proper handling of meat.

A can sterilizer is the center of interest in the garbage room. Shelves of iron pipe construction line three walls to hold the clean sterilized cans turned upside down to dry. Wood duckboards in the center of the floor hold the cans of trash and garbage. These are emptied early each morning and again by 2 o'clock in the afternoon. The cans are then washed and sterilized immediately. This ensures a

clean, sanitary, odorless room and plenty of clean cans.

Staples and dry foods are stored in the large food storeroom. A walk-in refrigerator holds all fresh fruits and vegetables. Supplies other than food are stored in a separate room. Issue of all food and supplies is done by requisition and a full-time storeroom man is responsible for the perpetual inventory matching the physical inventory at the end of the month.

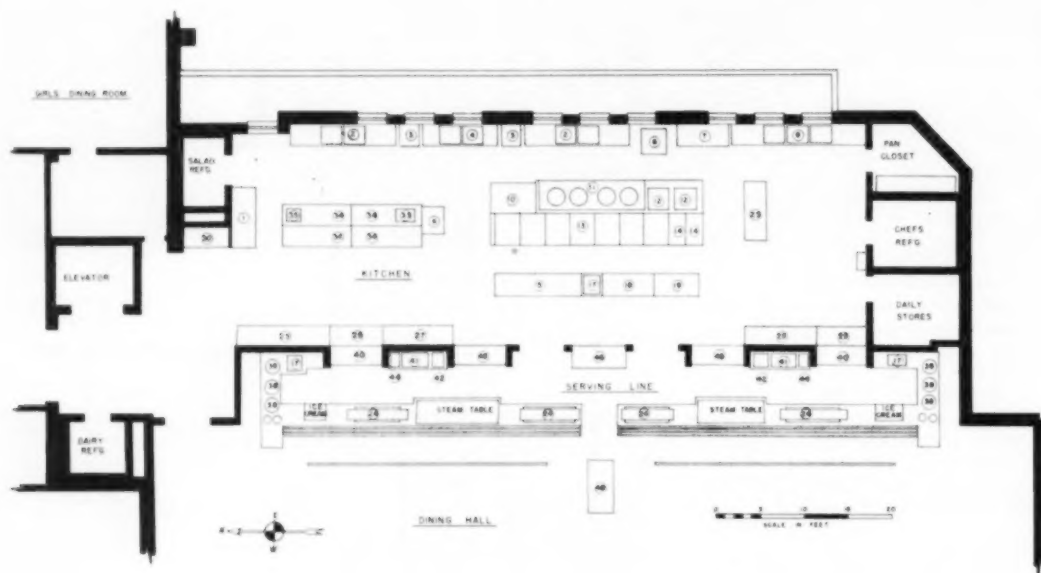
All equipment in the tile walled dishwashing room is stainless metal. Ample slides are provided for both clean and dirty dishes. A dish scraper, dishwashing machine, and a glass washer ensure clean dishes and glasses. Silverware is turned upside down into stainless steel containers and is not touched by hand after it is washed. An electronic dispenser on the dishwasher keeps the pH of the washing water within 1 per cent of perfect at all times, so that dishes are always free from bacteria after they come out of the machine.

An athletic dormitory kitchen, completed last fall at a cost of \$40,000, is

an addition to the men's residence hall. This building was taken over by the athletic department to house and feed the athletes who had to be on a training table. The facilities for feeding were planned by the director of food service to give the boys good, wholesome food in modern sanitary and attractive surroundings. Although they are in another building, all food and supplies for the athletic department's dormitory are requisitioned through the food service department.

The food service is staffed with a director, three trained and experienced dietitians, 10 cooks, three dining room attendants, and two custodians. Approximately 70 students work part time each day bussing, washing dishes, and helping the custodians maintain high standards of sanitation.

Staff members work together to give students on the campus the best food in the cleanest, most modern and beautiful place possible at the lowest price. We are growing with our university and hope always to be worthy of our responsibility to feed the youth of Wyoming.



Key to Knight Hall Kitchen and Serving Line

- | | | | |
|----------------------------------|-----------------------|----------------------|-------------------------|
| 1. Refrigerator | 10. Roast oven | 19. Cook's table | 38. Coffee urn |
| 2. Salad sink & drain boards | 11. Kettles | 24. Cold pan display | 40. Refrigerator |
| 3. Vegetable peeler | 12. Vegetable steamer | 25. Work table | 41. Griddle |
| 4. Vegetable sink & drain boards | 13. Gas ranges | 27. Sandwich table | 42. Hot plate |
| 5. Mixer | 14. Fryer | 30. Dish storage | 44. Toaster |
| 6. Pan rack | 15. Cook's table | 33. Vegetable cutter | 45. Food warmer |
| 7. Pot sink & drain boards | 17. Sink | 34. Salad tables | 46. Salad refrigerator |
| | 18. Bain marie | 35. Slicer | 48. Tray & silver stand |

WHEN THE TERM "FOOD COST" CONTROL is used, it is usually assumed to mean the control of all operations connected with the service of food in a food establishment. Since there are many other factors, such as labor in preparation, serving and management, equipment costs and maintenance, purchasing of raw foods and supplies, and building maintenance and replacements that are an integral part of the service of foods, it is best to consider the food sales dollar and how to control its allocation to provide the maximum in food value and services for a successful operation.

Cost controls should not be regarded as a means of reducing the quality of the food served or the services rendered but should be used as a guide to management in preventing wastes of raw foods, labor and material and should set up the system to double-check each phase of the operation to safeguard the sales dollar received from the purchase and sale of foods and services.

The task of providing well-balanced, attractive, low-cost meals has become a highly specialized field requiring accurate scientific data and professional training and management coupled with the ability to interpret and apply the facts reviewed in information gathered about the operation.

It is necessary that records be maintained on the various phases of the operation so that sufficient facts may be determined in order to guide management in its operational policies. Often the university will set up an elaborate system of records, checks, budgets and double checks and will assume that by such a system a food cost control has been established. But records do not control costs. Management must control costs, and it is more advisable to have simple records that are used daily than complex records that are costly to maintain and are of no value except to a statistician for textbook purposes.

Therefore, the procedure of setting up a cost control record system should proceed as follows:

1. The management should decide what information is necessary in order to determine policy.
2. Records should be kept that are inexpensive to keep, easy to prepare, and simple to read, and the savings

From an address delivered at the annual meeting of the Southern Association of College and University Business Officers, 1950.

How to introduce a system of

FOOD COST CONTROL

GEORGE F. BAUGHMAN

Business Manager

W. PALMER LONG

Director of Food Service

DAPHNE STEPHENS CANELL

Administrative Dietitian
University of Florida,
Gainesville, Fla.

should far exceed the costs of keeping such records.

3. Records should be prepared daily in order to keep an accurate financial control on the operation.

4. The facts learned from records should be used.

The most important factor is that management must determine what records and controls are necessary and apply the controls. Therefore, records should serve the following purposes:

1. They should enable management to record experience gained to be applied.
2. They should serve as controls of every activity connected with management.
3. They should protect management involved in the handling of funds, methods of purchasing, and employment promotions and dismissal practices.
4. They should provide an accurate financial status of the operation.
5. They should coordinate operations.

In order to show a cost control system in operation and the functions of each division of costs, we shall use a budget set on per cent of sales volume that is workable and flexible with sales volume, one that is used at the University of Florida in the three activities with sales volumes of \$100,000, \$200,000 and \$800,000 respectively. This budget is based on percentages of total sales including employee meals.

Since raw food purchases represent on the budget one-half, or 50 per cent, of the total sales volume of a food service activity and it is one of the most variable items of budget with market changes and static sales prices to students, the most attention must

be given to the controls necessary to safeguard this item of expenditure. Therefore, certain factors must be taken into consideration and standards set to control purchasing, menu planning, preparation of food, inventory and selling prices.

PURCHASING, STANDARDIZATION

In setting controls for purchasing and standardization of quality, the following procedure is successfully followed:

1. Purchasing is done on a competitive bid basis by the university purchasing department, with the food service division reserving the right to reject all or any part of the bid.
2. Complete specifications are written on each item purchased showing grade, item count, color, taste and weight.
3. Samples are required of all items of canned and frozen foods submitted for bid. It is the practice of each vendor to submit one case sample at the university's expense with his price quotation. This sample is inspected by a food testing committee composed of the director of food service, the administrative dietitian, and, in our case, the university faculty professor in charge of the food processing laboratory. Each sample can is graded, and selection is made on the basis of yield, quality and price. Price is not always the determining factor as the cheapest price is sometimes the most expensive food in yield.
4. By arrangement with the college of agriculture, all meats are inspected by professors in animal husbandry to determine whether the meat meets the grade specified. The college of agriculture will welcome an opportunity

to render this service as classes in instruction of the actuarial inspection of meats can be held in the meat room of the cafeteria.

5. Market quotations are followed weekly, and price advances are anticipated to cover rising costs. The vendors will keep you well informed if they know purchasing is done on an honest basis.

6. Seasonal buying is done in quantity to take advantage of packer to consumer shipments, thus avoiding storage and handling charges. The U.S. Department of Agriculture will supply packing and season production on all items of fruits and vegetables. It also provides a weekly market service on all foodstuffs showing excesses and shortages.

7. Vendor bills are given prompt attention, and all cash discounts are taken.

These procedures of purchasing are easily followed by the food service operator if the operator knows what he wants and what he can afford to pay if purchasing is done on a competitive, unbiased, honest basis.

MENU STANDARDIZATION

One of the strongest traditions of a community is its food habits. Nothing will rouse your clientele's righteous wrath more quickly than a menu alien to its habits. When one plans a menu for the public, especially if that public is a high spirited, outspoken college group, one must make menus that will conform to local dietary customs. It is then the problem of a trained dietitian to evaluate her menu and gradually to introduce new ideas that will give a balanced diet. This must be done in such a way that her customers accept the new as part of the old and do not feel that something has been forced upon them.

In the South, the menu maker must deal with a group accustomed to a high carbohydrate diet that includes many fried foods. This must be slowly corrected if the food dollar is to buy the required amount of vitamins and minerals. In spending the food dollar, the dietitian must consider local likes and dislikes and supplement the dietary deficiencies.

The guide to menu planning is the famous basic seven, namely: (1) one whole grain cereal each day; (2) at least five eggs per week; (3) one serving of complete protein each day; (4) one serving of citrus fruit or tomato; (5) two green or yellow vegetables

FOOD SERVICE BUDGET SET UP ON PERCENTAGES OF TOTAL SALES, INCLUDING EMPLOYE MEALS

BUDGET ITEMS	BUDGET	ACTUAL TO DATE
Cost of raw foods	\$0.00	53.5*
Salaries and wages (cash)	16.40	13.9**
Salaries and wages; student and employee meals	15.30	16.6**
Light and power (air conditioning runs 10 months a year in all units)	3.50	2.7
Supplies	2.14	2.3
Laundry	2.00	1.6
Maintenance	.50	1.0
Transportation	.10	.2
Postage, telephone	.06	.2
Advertising	—	.2
Depreciation on building and equipment	5.00	4.2
Net profit	5.00	3.6
	100.00	100.0

* This past year we have raised our raw food cost above the budgeted figure in providing a 50 cent special student plate.

** We use more than 300 student employees in our operations. Therefore, we have lowered our budgeted salaries and wages and raised our student labor. Students work a two and a half hour shift for three meals per day, and we use students for every type of job in food service.

each day; (6) 1 tablespoon of butter or an equivalent; (7) a minimum of 1 pint of milk per day.

The planned menu, as used in residence hall table service, can control the inclusion of each item on the daily menu. The dietitian can judge the acceptance of her menu by the leftovers and plate waste.

The dietitian who offers a multiple choice menu must offer a variety of the basic seven. Most of them must be included in each meal because many of her customers will eat only one meal in the cafeteria and must be able to find adequate supplements to the remainder of their diet.

Plate waste and popularity tests are only approximates, and many dietitians will want and need more concrete evidence. To have these she must divide her food expenditures into groups and know her average per cent expenditure for each group. The more commonly accepted grouping is:

Food	per Cent
Meat, fish, eggs, cheese	30
Fruits and vegetables	25
Dairy products other than cheese	20
Cereal products	10
Sweets, fats and sundries	15

This is a basic guide. Consequently, when one's food expenditures are approximately these percentages, one can conclude that the average patron has the opportunity to receive an adequate diet.

If all situations were identical, a master menu would be the logical solution to many food cost worries. However, every situation has its own set of problems. The menu planner must consider the amount of trained supervision available. Without ade-

quate supervision, good food cost control is impossible. The menu must conform to the equipment available and the training and mentality of the food preparation personnel. It is essential to plan a menu so that part of the preparation can be done ahead and part at the last minute; the plan must fit the serving period (some foods will not cook in a short time and will not hold when done). Labor hours can be saved by careful menu and time planning.

The type of service area and equipment available for service and the personnel doing the service will control the menu pattern and influence the volume of food sales. The usual menu pattern for cafeteria breakfast is a variety of fruit or juice, variety of cereal, main course, bread, butter, jam and beverages. For lunch and dinner, the menu will include first course (fruit or soup), main course, vegetables, bread, butter and jelly, dessert and beverage.

Most fruits and fruit juices are health guards and offer little net profit, whereas cereals are considered money-makers because of low raw food cost and the volume of consumption. To have egg dishes at a salable price and meet a margin of profit, the dietitian must have detail control over the purchase, preparation and serving, e.g. one scrambled egg is about half as much as the average person imagines it to be. Breads and beverages are definitely in the money-making groups, as are good quality soups.

Main courses as a group are money losers, but this group is governed by customers' approval or displeasure. An adequate, well prepared, and attractively served main course will bring

repeat sales. Vegetables and salads offer the food planner an opportunity to balance the excessive food cost of the main course. The sale of cake with thick white frosting usually means a profit; this is true of desserts as a group. Soups, desserts and beverages are usually considered to be the best money-makers, with solid cuts of meat leading the money losing group.

The control and use of leftovers can make or break an operation. They must be kept at a minimum and should be used within 24 hours of the first service. Production and consumption records that are simple to use offer a good guide on which to base future production. To be usable, these records must give a complete picture. The menu as a unit with prices, preparation, grade of each item, method of service, weather conditions on that day, day of the week, month and year, calendar of school activities are some of the items that will influence the popularity of an item. Leftovers are inevitable, and the food production dietitian must use her ingenuity and training to make them more appetizing on their second appearance.

In setting the menu standard, the dietitian must consider the food service budget in relation to purchasing, storage, preparation and service.

CONTROLLING STANDARDS

Food preparation standards can be controlled by (1) standardized recipes; (2) trained supervision of all phases of preparation; (3) purchase of foods to fit preparation facilities; (4) standard cooking temperatures and methods.

Serving standards can be controlled by (1) adequate serving to fit average customer demands; (2) standardization of serving portions; (3) training of personnel to serve the standards; (4) line and kitchen supervision (meats, salad and desserts prepared in standard servings ready to serve; vegetable and à la carte portions determined by serving equipment, standard number of servings per pan, and supervision to force compliance with portion-serving standards).

It is best to determine a standard price for each item of cafeteria and snack bar sale and maintain that standard on at least a school year basis. Prices can be lowered during the school year, but it is difficult to raise prices without creating mistrust and reactionary student criticism with possible loss of sales volume, thus starting a chain of reactions hard to stop.

The total cost of labor is determined largely by the type of service the university decides to provide. At the University of Florida, where we operate soda fountains, short order grills, cafeteria food service, special parties, and catering service, the total cost of labor runs 31.6 per cent of total sales volume. However, the actual cash paid out for labor in relation to the actual cash received runs 19.9 per cent and for state budgetary requirements it is represented as such with the other 11.8 per cent reflected in raw food costs. For our operational controls, we prefer to allocate employee meals and student employee meals as a direct charge against labor expenditure and take sales credit for these meals, as all employees are considered customers and pass through our regular customer service lines.

Fully to understand and control labor expenses, we have taken our labor dollar and divided it as follows:

	PER CENT OF LABOR \$	PER CENT OF SALES \$
Administrative labor	9	2.8
Warehousing, accounting and clerical	7	2.2
Food preparation	32	10.9
Food serving	25	7.9
Bus boy, dishwashing and general clean-up	24	6.9
Maintenance of building and equipment	3	0.9
	100	31.6

Again, the type of service rendered will determine the breakdown of labor by classes, and what is a normal percentage allocation for one food service at one time will be over or under at another time. So production standards of labor must be set on each job. Therefore, each operator should (1) make a job analysis of each job; (2) write job specifications for each job; (3) train all new personnel to fill each job specification; (4) have a constant training program for essential jobs, such as cooks, bakers, meat cutters, student cashiers, and fountain operators.

OWN MAINTENANCE DEPARTMENT

Light and power and air conditioning constitute the next item of expense on our budget, and it amounts to 3.5 cents of each sales dollar. Since our units are all electric and air conditioned, it has been necessary for us to provide our own electrical maintenance department under the supervision of an equipment engineer.

All consumable items of equipment, such as dishes, cooking utensils, and

paper supplies, are charged as a direct expense under supplies at the time of purchase.

In order to cut laundry costs and provide white uniforms for all employees, we have installed our own laundry, purchased all our own uniforms, and cut our linen expense 20 per cent.

Now that we have covered the items of an operating budget that directly or indirectly affect the food costs, we find that if raw food represents 50 per cent of the sales dollar, and if meats cost 30 per cent of the raw food costs, the greatest cost in budgeting food cost must be paid to the meat entrées. It is impossible to serve quality meats, such as roast beef, lamb, baked ham, roast pork, liver, chicken, shrimp and such, in adequate servings of 4 ounces of cooked meat for a 30 to 35 cent price, which is a maximum price the students will pay, and maintain a 50 per cent raw food cost on these items. Therefore, the choice of desserts, salads, vegetables and hot breads must be attractive enough to sell in quantity to overcome the loss on the meat entrées.

We provide a wide variety of pies, cookies, cakes and sweet breads in our bakeshop that yield a 70 per cent gross and ensure 90 per cent customer acceptance. If we can average one meat, one vegetable, salad, dessert, one bread, one butter, and drink from each customer, we can offset one high meat entrée raw cost. We are doing just that with an average meal check for lunch and supper of 65 to 67 cents.

If raw food costs exceed 55 per cent, it is likely that (1) the sale price of the item is too low; (2) the portions served are too large; (3) there is undue waste in food preparation; (4) there is improper purchasing of raw foods, or (5) there is poor management of leftovers.

Often the food service operation will attempt to cover management errors and laxity in controls by complaining that sales prices are too low and portions served are too large. A good test of this will be in the students' acceptance of the food service and their complaints compared with those of commercial establishments. The university should average 10 per cent lower prices than those charged in comparable feeding establishments.

On the other hand, if raw food costs fall below 45 per cent, the same factors are likely to exist in reverse in relation to price and portions served.

Profit making should not be the main objective of a university food service, and profits should not be made at the expense of overcharging for meals or reducing quality of the food served. Profit should be the result of efficient, carefully planned management with a student body satisfied as to the quality, quantity and price of cafeteria food.

The profit accrued in a food service operation should be returned to the food service division in the form of reserves for actual building improvement and equipment replacements. The food service operation should be allowed enough profit to enable it to purchase equipment when needed and

the tools to do the job more efficiently. Further, if the operation is to take advantage of quantity purchases and market drop, it must have sufficient capital to invest in inventory to guard against higher raw food prices. It is as true in food service as any other business that wise investment of capital in purchasing, building, service improvements, and new equipment results in a more successful operation.

In summation, food cost control consists of five primary parts, namely, assembling data pertinent to operating plans; setting up a workable budget; establishing controls; executing plans, and reviewing operations for future planning.

must schedule the worker to fit the hour of serving. Here is an outline of the setup we are finding successful.

STUDENT ASSIGNMENTS

1. Waiters and waitresses, bus boys and girls
2. Counter service and some kitchen work
3. Machine dishwashers, except for mopping up operations in cases where classes interfere
4. "Head special" (we do not call them head waiters or waitresses)
5. Cashiers and checkers
6. Linen room supervisors
7. Part-time office work
8. Catering work
9. Snack bar service
10. Student clerks

The office of student affairs holds conferences with men students seeking employment, and assistance is given to the deserving ones. The dean of women's office assists in placing worthy women students. When a new recruit is needed, a student is sent to me. He is given substitute and occasional work. Then, after a thorough trial during which training is given to familiarize him with the job, he gets a regular assignment.

This preliminary training is given under the supervision of the "student specials," or dining room supervisor. Girls are given priority in the women's dining hall and men students have priority in the cafeteria. A good worker who is trained is assured a place for the succeeding year before new applicants are considered. Instructions for reporting are sent out during the summer. If a student is not reemployed, he or she is told so by the food director.

Last year we had a waiting list of 100 men; girls, too, always can be replaced. Athletes are assigned from our coaches' list. Some are satisfactory, others are not and must be eliminated.

Good workers have an opportunity to advance from small dining halls (100) to large dining halls (450); from the one with mediocre facilities to dining rooms and cafeterias with new and adequate facilities; from the serving of tables to the post of linen girl, head special, or dishwasher. The worker doing an outstanding job has a chance at over-time work. Students in home economics with a good scholastic record and an outstanding record in our dining halls are asked to come back on appointment to the department after graduation.

We find no real problem in using

STUDENT PERSONNEL

IBBIE JONES

Food Director
Alabama Polytechnic Institute
Auburn, Ala.

ALMOST EVERY COLLEGE AND UNIVERSITY employs some students in offices, in bookstores, on switchboards, or in laboratories; however, the dietary department and its dining halls and cafeterias employ the greatest number. This practice is particularly successful in the southeastern area, where students must have some part-time employment to help defray their school expenses, and without which some could not attend college.

We employ 100 students in our six dining halls and cafeterias and always there is a waiting list of 50 or 75.

To cope with student personnel problems, one must be somewhat of a student of human nature. Of course, this is true in dealing with people in any organization. To understand the students is to minimize our problems. We should know something of their background. We should learn of their interests, career aspirations, financial status, and attitudes. The state of one's health is a big factor in doing satisfactory work.

As we go about teaching college students how to do assigned tasks, they should have a job analysis sheet just as do the full-time employees. At

Alabama Polytechnic Institute we are endeavoring to build (1) a willingness to learn; (2) a willingness to follow instructions, and (3) above all, cooperativeness.

At the beginning of each school year we hold a short course and go over school policies, responsibilities, sanitation, time off, work substitutes, and the like. Once a week the unit dietitians have a meeting with their own group to go over current matters and details.

We have no real student employment problems except for the scheduling of the workers each quarter. We

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Student waiters.....	\$0.42 per Hour
Linen room.....	0.45
Head special.....	0.56
Machine operators.....	0.75
Office work.....	0.65 to \$0.75
(typist)	
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(over-time for serving banquets)	

The hourly wage scale seems exceptionally low; however, it is tuned to the students' daily board rate of \$1.20, or \$32 a month.



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If your buildings should burn, you will almost certainly find that your insurance indemnity check is inadequate to cover replacement. You will find that you are harried by costly delays in replacing scarce equipment, while your employees drift to other jobs and your students go elsewhere. Fortunately, there is one way to protect your buildings against ruinous fire losses in times like these. That is the positive protection of an automatic sprinkler system.

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NEWS

Panic Enlistments Slowed . . . Guesses on Drop in Fall Enrollments Vary From 15 to 50% . . . Marshall-Rosenberg Plan Would Defer Up to 75,000 Students . . . Commission Reports Inflation Is Endangering Colleges

Leaders Are Named for Eastern Workshop Later This Month

NEW YORK.—Plans for a workshop under the sponsorship of the Eastern Association of College and University Business Officers have been completed, according to Chester D. Onderdonk, chairman of the association's survey and training committee and director of personnel at New York University. Workshop sessions will be held on February 26 to 28 at the Hotel Roosevelt here.

The workshop will deal with matters of accounting, budgeting, plant maintenance, fee collections, scholarships and loans, residence and dining hall operations, and personnel, indoctrination and in-service training.

Group leaders for the three-day sessions include the following:

Accounting: Earle L. Washburn, director of accounts, N.Y.U.; Gail A. Mills, controller, Princeton University.

Budgeting: Henry W. Herzog, comptroller, George Washington University; George E. Van Dyke, specialist, for college business management, Office of Education.

Residence and Dining Hall Operation: William N. Davis, manager of dining halls and student residences, Brown University.

Fee Collections, Scholarships and Loans: G. Stanley Rupp, assistant treasurer, University of Pittsburgh; John N. Schlegel, treasurer, Lafayette College.

Personnel: George W. Armstrong, director of personnel, University of Pennsylvania; Frank F. Morris, director of personnel services, Pennsylvania State College.

Plant Operation and Maintenance: Robert Mueller, superintendent of buildings and grounds, Cornell University; John Kreinheder, superintendent of buildings, Middlebury.

FOOD SERVICE INSTITUTE

John L. Hennessy, former chairman of the board of directors of the Statler Hotel Corporation and now president of John L. Hennessy and Associates, a New York firm of food service consultants, will be the keynote speaker at the Food Service Institute in Chicago, July 30 to August 1. Mr. Hennessy is also a food consultant for the federal government.

Registrations for the Food Service Institute, jointly sponsored by Northwestern University and College and University Business, should be directed to Willard J. Buntain, director of dormitories, Northwestern University, Evanston, Ill. The registration fee is \$17.50. Registration will be limited to 125 delegates, and the first come, the first served. A maximum of two delegates from the same institution has been established in order that the largest number of colleges might be represented. Institute sessions will be held at the Knickerbocker Hotel in Chicago.

Panic Enlistments Slowed by Defense Office Ruling

WASHINGTON, D.C.—Secretary of Defense Marshall announced on January 19 that college students may continue their studies for the remainder of the academic year and still be able to volunteer in any of the services.

Under the provisions of the new policy, students who receive draft notices will be permitted to volunteer for the service of their choice if there are openings "at any time in the two months immediately preceding the final month of their school year."

The new policy goes into effect immediately. Previously, none of the armed services would accept a voluntary enlistment once a man had received a notice from selective service to prepare for a pre-induction physical examination.

Marshall-Rosenberg Plan for U.M.S.T. Would Permit 75,000 to Finish College

WASHINGTON, D.C.—The proposal of the Department of Defense in regard to universal military service and training appears to be the plan that is most likely to be approved by Congress. It is expected that some modifications of the plan will be made, but the main objectives of the plan will be retained, according to sources here.

The plan, sometimes referred to as the Pentagon plan or the Marshall-Rosenberg proposal, is receiving support from the Association of American Universities, the Association of American Colleges, and the American Council on Education.

Modifications of the proposal that may be considered would include substitution of the age of 18½ for age 18 and extension of the combined service and training cycle to 24 months instead of 27 months as proposed.

The Marshall-Rosenberg proposal calls for every physically fit 18 year old to be liable for maximum of 27 months of service and training in armed forces. Training is to be not more than six months, with no man to be sent overseas in less than four months. The bill would allow 18 year olds to graduate from high school before induction, provided graduation was prior to the 19th birthday. Students who started their college year before their 18th birthday could not be inducted until after completion of the college year.

In the first three years of U.M.S.T. program, the President would have authority temporarily to suspend the active service requirement of up to 75,000 students so they could complete their college training. These students would have to undergo an initial four-month period of military



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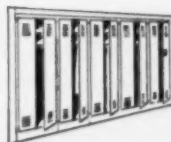


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NEWS

training on same basis as all other eligibles. Obligation for completing service would have to be fulfilled after graduation. Methods for selecting students to be deferred and for deciding courses of study that would be important to the national interest would be left entirely in civilian hands under procedures to be drawn up by the President.

The Department of Defense has offered to Congress a proposal for an expanded program of college training of young officers through R.O.T.C. Students selected for this program would have to serve an initial four-month period of basic training, the remainder of their service to be fulfilled after graduation.

College training courses for military personnel on active duty, in specialties of direct value to the military, may involve as many as 50,000 men a year, it is estimated.

As a further aid to high industrial output and to meeting the country's needs for doctors, scientists and other technicians, the President would not be required to induct men immediately after college graduation. Further deferment could be granted by the President in the national interest where he felt the man could make a more substantial contribution outside. If not called in 10 years, such a person would be relieved of further U.M.S.T. obligation.

Copper and Nickel Now Restricted in Manufacture

WASHINGTON, D.C.—To conserve copper vitally needed for defense, the National Production Authority issued order M-12 governing the use of copper in the manufacture of a wide range of products, starting March 1. The order permits the use of copper where it serves a functional purpose and where no practical substitute is available.

Contained in order M-12 was a list of articles in which no form of copper may be used: builders hardware, building materials, burial equipment, clothing and dress accessories, furniture and fixtures, hardware, home furnishings and equipment, household appliances, jewelry, gifts and novelties, miscellaneous articles, motor vehicles, and passenger transportation equipment.

Order M-14 was amended on January 23 to assure nickel for the ex-

panding defense program and for highly essential civilian production. Typical of articles that will not be permitted to include nickel after March 1 are: auto bumpers, grills, hub caps, decorative trim, doors, down spouts, roofing, ash trays, cabinets, drainboards, flatware, table and range tops, automatic vending machines, sporting goods, toys, piping, valves and fittings, bar and cafeteria counters, water coolers, food mixers, and hand tools.

Council Approves Draft Act Amendments; Brown Is Optimistic

WASHINGTON, D.C.—Expressing a unanimity in education that appeared impossible two months ago, 75 national organization members of the American Council on Education expressed general approval of amendments to the Selective Service Act of 1948 at a two-day conference here late in January.

In respect to certain provisions, the council called for clarification or changes on the following:

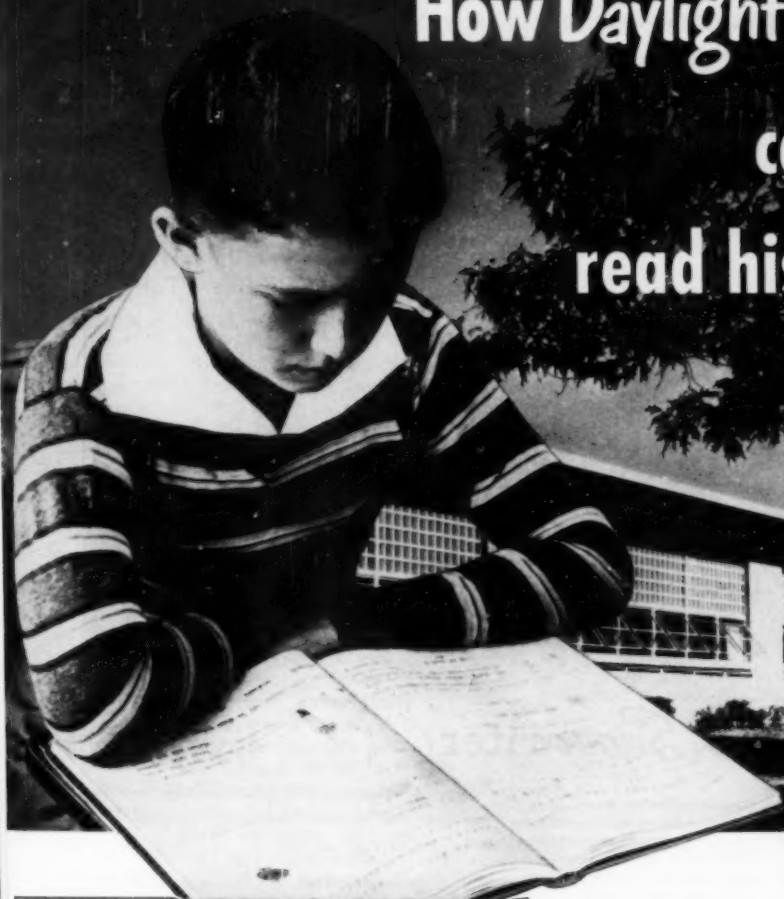
1. That 75,000 students should be the minimum number permitted to return to college annually after basic training. The President should have the power to increase the number at any time he considers such action to be in the national interest, the council holds.

2. That provision for returning men to college after basic training is for three years only. The council thinks it should be a continuing provision.

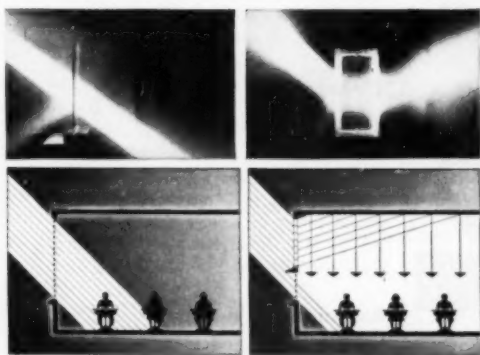
3. That power is granted to the President to defer only "categories of students." The council believes the President should be empowered to defer all students now satisfactorily pursuing courses in institutions of higher education until the completion of their courses of studies, the period of obligation for military service or such other service as the President may direct to be extended accordingly.

Because of the far-reaching effects of the manpower bill, the American Council on Education recommends that the President appoint a civilian advisory commission composed of individuals not holding positions in the federal government. The duties of such a commission should be (1) to advise with the officers of the government charged with the administration of this law; (2) to interpret to the public

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Standards for good seeing in schoolrooms are few and simple.

For example, children's open books should not be *more than 3* times as bright as the desk tops on which they rest.

The light source—whether it be the windows or lighting fixtures—should not be *more than 20* times as bright as the surfaces surrounding it.

Yet in many classrooms where the light enters through average windows, the brightness is more than 100 times that of the walls next to the windows.

Lighting authorities recognize the importance of eliminating glare sources, and of reducing brightness contrasts in schoolrooms. Scientific research is discovering vital things about the bad effects of poor lighting on students. Daylight Engineering is putting good seeing into both new and old schools.

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NEWS

acts and decisions carried out under its provisions, and (3) to express the views of the public regarding its provisions, effects and desirable duration.

On the basis of anticipated changes in selective service regulations that might reduce present demands for manpower, Dr. Francis J. Brown, staff associate of the American Council on Education, declares that he does "not join the pessimists . . . in regard to next fall's enrollment." Changes to which he refers and which Congress

might adopt include: (1) continuance of postponement of induction during the student's academic year in which he receives his call for induction; (2) return on nonmilitary status of at least 75,000 men a year after four months of basic military training; (3) continuance of all present freshmen, sophomores and juniors in college until they complete their education, and (4) about 200,000 R.O.T.C. students.

In the light of these facts Dr. Brown anticipates for the fall of 1951 not more

than a 15 per cent additional drop, or a total of 25 per cent decline from the peak enrollments of 1948-49.

In projecting enrollments into the future, it is obvious that by 1957 the increased birth rate will begin to be reflected in college enrollment, Dr. Brown asserts.

Estimates Enrollments Will Decline 28% Next Fall

WASHINGTON, D.C.—As a result of likely passage of the Defense Department proposal for universal military service training, college enrollments in the fall of this year will decline approximately 28 per cent, according to a competent Washington observer. The total enrollment anticipated for the 1951 fall enrollment was estimated at 1,677,000.

In arriving at this figure the following data were suggested as contributing to the total enrollment:

MEN

Entering freshmen (assuming 50 per cent of 1950 full enrollment)	150,000
Nonveteran men above freshman level (assuming induction of 200,000 of 570,000 students now postponed or deferred and graduation of 170,000)	200,000
Veterans (assuming 33 1/3 per cent decline from 1950 enrollment)	350,000
R.O.T.C. and other student deferments	200,000
4-F's	50,000

WOMEN

(Assuming same number as fall of 1950)	727,000
--	---------

TOTAL 1,677,000

This estimate does not include training programs and members of the armed forces in college that, according to Mrs. Anna Rosenberg, might supply an additional 50,000.

Association Members Predict Lean Year

ATLANTIC CITY, N.J.—When the Association of American Colleges met at its annual meeting in January in this city, almost the entire program was devoted to discussion of problems caused by operations of Selective Service. The 700 college presidents and administrators in attendance were pes-



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Positively reduces slip hazards! Johnson's Shur-tred has been thoroughly tested on all types of floors, including asphalt tile, terrazzo and marble...under all conditions of temperature, humidity, maintenance! In hospitals...school areas...office buildings...manufacturing plants. In every instance *Shur-tred put an end to slip complaints!*



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No other Safety Finish offers this combination of features!

- ★ *not tacky* ★ *not gritty* ★ *brightest shine*
- ★ *toughness* ★ *wet-mop-proof* ★ *full protection*
- ★ *easy application* ★ *quick drying*

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NEWS.

simistic in their prediction of next September's enrollments, some predicting more than a 50 per cent decline in enrollments.

Educators were critical of the proposal that 18 year olds be drafted and urged that postponements of qualified students' military service be granted, possibly after basic training. They requested that the Reserve Officers Training Corps be expanded and that colleges be employed for military and civilian defense training when possible.

In view of the evident success of the G.I. bill, there appeared to be many educators who were anxious that some sort of national scholarship aid be developed, though there was still a substantial group that felt such a program might well lead to the threat of federal intervention and control.

Delegates at the meeting urged that the Department of Defense permit a college student who was now deferred to have the privilege of choosing his branch of service even after receiving

his notice to prepare for his physical examination. (The Department of Defense subsequently did approve such a change in present Selective Service regulations.)

No Switch to Classrooms From G.I. Mail Courses

WASHINGTON, D.C.—Veterans taking G.I. bill correspondence courses will not be permitted to switch to classroom courses after the July 25, 1951, cut-off date for training. Veterans Administration officials said recently in answer to many queries.

V.A. said its cut-off regulations require that once a veteran completes or discontinues a course after the 1951 deadline, he may not start another. He may, however, advance from a basic or preparatory to an advanced phase of a course.

Correspondence courses, V.A. added, have been "universally accepted" as independent courses within themselves and not as stepping stones in preparation for residence study. Therefore, a veteran who finishes a correspondence course after the cut-off date would not be entitled to further classroom training, even though it's in the same field.

However, he could go ahead and take more advanced work by correspondence, if the advanced training is considered a "normal progression" toward his educational goal.

Hunter Plans Four-Year Coeducation in Bronx

NEW YORK.—Hunter College will establish a four-year coeducational college in the Bronx, as the result of action by the Board of Higher Education of New York City. The change will go into effect in September.

The Bronx division of Hunter College now offers a two-year curriculum for girls. Immediately after the war it was used as an overflow center for Hunter students and at that time included some men students.

The new policy is expected to increase college opportunities for city high school graduates and at the same time reduce overcrowding at Hunter College's main building at 695 Park Avenue in Manhattan.

The establishment of a four-year college on Hunter's "uptown" campus has been urged for some time by Bronx civic groups.



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Show me the
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NEWS.

Methodists Seek 50 Cents per Member for Colleges

ATLANTIC CITY, N.J.—Higher education leaders at the annual meeting of the National Association of Schools and Colleges of the Methodist Church urged that the 1952 Methodist General Conference make support of church related colleges, Wesley foundations in state universities, and theological seminaries the major emphasis of the quadrennium.

It was reported that only 6 per cent of the total operating budget of Methodist colleges is presently coming from the church. This year's total of \$2,013,000 amounts to 21.8 cents a Methodist church member for support of higher education. The proposal submitted before the association suggested that the Methodist Conference set a goal of 50 cents annually from each of the 8,933,647 members of the Methodist Church for support of 125 church related colleges and universities, and 15

cents a year from each member for financing the 160 Wesley foundations on non-Methodist campuses.

Highest Endowment Return Insufficient at Chicago

CHICAGO.—Financial difficulties of private institutions in the continuing period of inflation and spiraling costs are highlighted by the financial report of the University of Chicago for the last fiscal year.

Despite the highest total income from endowment in the 60 years of the university's history, an underwriting of \$859,798 from nonrecurring sources was required to balance the regular budget, the report of Comptroller Harvey C. Daines reveals.

It cost \$16,566,019 for normal research and educational operations, the highest total ever required, and 2.5 per cent more than the peak reached in the previous year, according to the report. The \$16,566,019 was almost twice, or 193.2 per cent, the \$8,572,811 required for the regular budget two decades ago.

Principal items of income under the regular budget were: student fees, \$5,179,606, or 31.4 per cent; endowment income, \$4,228,533, or 25.7 per cent; patient fees, \$4,522,589, or 27.5 per cent, and gift support, \$1,869,252, or 11.5 per cent. The \$4,328,202 of income from the endowment principal of \$70,972,025, was the largest sum ever provided by that source. The rate of 6.1 on the average endowment funds balances was exceeded only in 1929-30, when the rate was 6.2 per cent.

Investments are diversified as follows: bonds, 38.5 per cent; preferred stocks, 8.4 per cent; common stocks, 30.6 per cent; real estate, mortgages and contracts, 21.8 per cent; sundry, 0.7 per cent. On its real estate investments, the university paid a total of \$454,461 in local and state taxes, either directly or through rental agreements with tenants.

Electrical Industry Grants Big Columbia Scholarships

NEW YORK.—Columbia University recently announced the establishment of the largest industry supported scholarship program in its 197 year old history. The project in its entirety will call for an annual expenditure of more than \$55,000, which is compar-

TOP DESIGNERS SPECIFY TOP MATERIALS

The Robinson Treasure Room



Jens Frederic Larson chose Hood Rubber Tile for new Colby College building program



Miller Library

Forced by the difficulty of maintaining high scholastic standards on a campus which had been hemmed in by industrial growth, Colby College in Waterville, Maine, accepted the gigantic challenge of constructing an entirely new college at a more desirable location just outside of town! This tremendous undertaking started in 1937 and at present is 80% completed.

The architect for this historic job is Jens Frederic Larson of New York, well known for his many contributions to schools and colleges all over the country. For the flooring in the Miller Library shown above, as well as most of the other buildings in the program, Mr. Larson chose Hood Rubber Tile for more comfort, quiet, beauty and longer wear.

Every day, top designers are choosing Hood Rubber Tile for better flooring in all types of buildings. So let Mr. Larson's choice be yours for better flooring with Hood Rubber Tile . . . the choice for over 26 years.

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Goodform No. 4310, shown here, is one of a complete line of fine aluminum chairs designed for institutional service. Write for a free color folder illustrating the many different styles in Goodform Aluminum Chairs now

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NEWS.

able to an endowment of nearly \$1,500,000 at the present rate of investment return.

The plan is sponsored by a group of electrical contractors in the metropolitan area, all members of the Joint Industry Board of the Electrical Industry, which is already sponsoring two annual scholarships at Columbia.

The scholarships will be available only to sons of workers affiliated with Local Union No. 3 of the International Brotherhood of Electrical Workers, A. F. of L., and who are members of the industry's pension plan.

The electrical scholarship plan received its initial impetus two years ago when the joint industry board established two annual scholarships. Under terms of the scholarship agreement, each scholarship, which is worth \$4260, will provide for three years of liberal arts study at Columbia College and three years of additional study in electrical engineering in Columbia's school of engineering.

Maine Colleges Consider Accelerated Program

PORTLAND, ME.—Officials of Maine colleges indicated recently that they were considering returning to the accelerated programs adopted in World War II, especially if Congress lowers the military draft age to 18 years.

Bowdoin College is reported to be submitting the matter to its governing board in connection with a special summer undergraduate session.

President Arthur A. Hauck at the University of Maine is said to have given the matter serious consideration but was awaiting outcome of Selective Service revisions before making a definite recommendation. A. Galen Eustis, vice president of Colby College, also admitted that thought was being given to an accelerated program at Colby.

Purdue University Lets Construction Contracts

LAFAYETTE, IND.—Robert B. Stewart, vice president and treasurer of Purdue University, announced recently that the trustees of Purdue University had let construction contracts totaling \$5,006,599. The contracts covered the construction of one wing and certain basement units of a new Life Science Building at a cost of \$1,140,000, an addition to the Chemistry Building at

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Vol. 10, No. 2, February 1951

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NEWS

a cost of \$946,500, a men's residence hall at a cost of \$2,335,200, and a new service building at a cost of \$584,899.

First mortgage bonds in the total sum of \$2,300,000 were sold to finance the construction of the men's residence unit. The bonds of this issue were in \$1000 denomination with early maturities carrying a 2 1/4 per cent coupon. Bonds maturing in the final seven years of the term of the issue carry a 2 1/2 per cent coupon.

Brown Forfeits \$450,000 of Contingent Gift

PROVIDENCE, R.I.—Dr. Henry M. Wriston, president of Brown University, announced recently that the university had not been successful in its efforts to qualify for a gift of \$450,000 in stock by John D. Rockefeller Jr.

Brown is engaged in a \$10,000,000 housing and development program. The university had received a \$900,000 gift from Mr. Rockefeller and he had

promised another \$450,000 if the university could raise \$2,000,000 more by the end of 1950. The university missed its objective by \$650,000, Dr. Wriston stated.

Dr. Wriston has announced that the development program will continue without curtailment and that the university will resort to additional borrowing, while continuing its fund raising campaign.

Princeton Plans Research Center on 800 Acre Tract

PRINCETON, N.J.—Acquisition by Princeton University of the plant and property formerly occupied by the Rockefeller Institute for Medical Research on the Brunswick Pike and adjoining the university property on the east bank of Lake Carnegie was announced recently by President Harold W. Dodds.

The buildings on the 800 acre tract of farm and woodland will be converted into a research center in the fields of aeronautical engineering, jet propulsion, chemical kinetics, and related sciences to be established as a memorial to the late James Forrestal, first Secretary of Defense, a member of the class of 1915, and a charter trustee of the university.

Two three-story major laboratories and 13 single story buildings are available for research purposes. In addition, 26 family units ranging from four-room apartments to 12 room houses are located on the property.

In underwriting the purchase price of approximately \$1,500,000 and taking title to the property, the university has received assurances of support from various agencies, Dr. Dodds stated.

Entire Faculty Resigns to Help College Continue

DANVILLE, IND.—The entire faculty of Canterbury College, 28 in all, resigned recently in order to help the institution save money. The faculty stated that this action would give the board of trustees a free hand in rehiring as many as the college's finances would permit for the second semester. At present, it is reported that the college, with an enrollment of 220 students, is \$90,000 in debt. The faculty and staff of the college have not been paid since November 27, it is reported.



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NEWS

Continuing Inflation Perils Private and Public Colleges, Finance Commission Reports

NEW YORK.—Inflation is so serious a peril to higher education in the United States that it has been made the subject of the first statement released for publication by the Commission on Financing Higher Education.

Engaged in a long-range study of the financial problems of public as well as of private colleges and universities, the commission is composed of 12 business and educational leaders from all parts of the country and is financed by grants from the Rockefeller Foundation and the Carnegie Corporation. The commission is sponsored by the Association of American Universities, headed by President Frederick A. Middlebush of the University of Missouri.

"In a time when the national emergency requires the vital services of our colleges and universities, continued inflation will impair or even liquidate a substantial part of their resources," the statement says.

Pointing out that "rising educational costs will bring proposals for

some kind of general federal government subsidy to higher education," the commission emphasizes that government can be more helpful in halting inflationary trends through fiscal policies than through compensatory grants.

The four principal sources of income for institutions of higher education are listed as student fees, government appropriations, endowment earnings, and current gifts. For privately supported colleges and universities the most important single source is in student instructional fees which provided 52.9 per cent of the income in 1939-40 and 63.5 per cent in 1947-48. On the average, private universities have increased their student charges 51 per cent in the last 10 years, the increase for private liberal arts colleges having been 61 per cent.

In the case of publicly supported institutions, the percentage increase has been greater than in the private ones. State universities have increased their out-of-state tuition fees by 80

per cent. Between 80 and 90 per cent of appropriations for publicly supported institutions comes from state and local governments; from providing 70 per cent of the educational income in 1940, these appropriations declined to less than 60 per cent in 1948.

"Today, state legislatures see effective limits to their sources of revenue, particularly in the face of increased federal taxation. Moreover, states are being asked to expand their welfare and other activities. Consequently, adequate appropriations to public universities will be difficult to obtain."

Of major importance to private colleges "and of appreciable importance to some public institutions" is income from endowment. This provided 23.4 per cent of total educational income for private institutions in 1940 and only 11.8 per cent in 1948. "Moreover, each dollar these investments bring today will buy little more than half of what it did in 1940."

Turning to annual gifts as the fourth source of income to meet regular operating costs, the commission states: "Such gifts to public institutions almost tripled between 1940 and 1948 but were still only 2 per cent of their total educational income. Partly in response to vigorous campaigns that may be difficult to maintain, gifts to private institutions doubled. Nevertheless, the proportion of these gifts to total income declined from 13 per cent in 1940 to 11 per cent in 1948."

On the expenditure side of the educational ledger, the largest single item is faculty salaries, according to the commission. These have been increased from 40 to 50 per cent during a period of a 70 per cent increase in price levels, resulting in a decrease in purchasing power for faculty salaries since 1940.

Largest Library in South

DURHAM, N.C.—The library at Duke University recently became the fourteenth in the nation to reach the million volume mark, according to Dr. Benjamin Powell, librarian. Duke is the first institution in the South to attain this distinction. Other institutions having more than a million volumes include Harvard, Yale, Columbia, Cornell, Princeton, Pennsylvania, Chicago, Northwestern, Illinois, Michigan, Minnesota, California and Stanford.



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Slope-front design of Sanitor Urinal makes for clean, dry floors. The Sanitor comes in vitreous china or Crane Duraclay, both unaffected by ordinary cleaning acids, and easily cleaned with a swab or brush. Matching seam covers give a neat, one-piece appearance.

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NEWS.

Korean Disabled Veterans to Get Retraining Courses

WASHINGTON, D.C.—The Veterans Administration has issued regulations outlining conditions under which veterans disabled after fighting started in Korea may be entitled to Public Law 16 rehabilitation training.

The training, previously limited to World War II veterans, was extended to many veterans disabled on or after June 27, 1950, by Public Law 894, signed by the President late last year.

Under Public Law 894, a veteran must have been disabled after the Korean conflict began and prior to a date yet to be fixed.

The new law requires that the disability be such that V.A. may pay compensation at full wartime rates. Such rates are paid for disabilities or injuries resulting from armed conflict or during extra-hazardous service or while this country is engaged in war. Under the new law, the July 25, 1956, deadline for P.L. 16 training

will not apply to newly disabled veterans. Instead, they will have nine years from the end of the current emergency in which to train.

Public Law 894 states that veterans who already had G.I. bill or Public Law 16 training, as a result of their World War II service, may be entitled to additional training, if it is found necessary because of new disabilities.

Average Nonresident Student at Tulane Spends \$209 per Month

NEW ORLEANS.—The school of social work at Tulane University recently has completed a study on the problem of "How much does it cost to go to college?"

Using 50 of its own full-time, out-of-town students as a sample group, the school has found that it costs an average nonresident college student \$1,739.23 for 36 weeks of schooling in a regular school year. Using four and one-third weeks to a month, this figure totals \$209.34 per month.

To get the best average cost of living picture possible, all expenditures of the 50 sample students for a three-week period were analyzed, plus what they already had paid out in tuition, books and so forth. Each student kept a complete day-by-day diary. Researchers added the three weekly totals for each expenditure item and then divided by three to find the average.

The figure was then multiplied by 36 (number of school weeks) to determine the estimated amount for the school year. Exceptions to this method were made in the case of automobile expenses, insurance, taxes and dues, because estimates for the entire sample group could not be drawn, although these expenses were of interest as individual items of expense.

The sample group consisted of 40 single women, six single men, and four married students.

Tuition, fees, school supplies, and library fines represented the largest school year expenditure, averaging \$489.35 per student, and totaling \$23,516.58, or 27 per cent of the total expense.

Food and housing expenses ranked second and third, respectively, and together came to \$33,627.80, or 38.7 per cent of all expenditures. Since the type of housing arrangement influenced the type of eating arrangement, the two

How to keep school-lunch prices *IN LINE!*



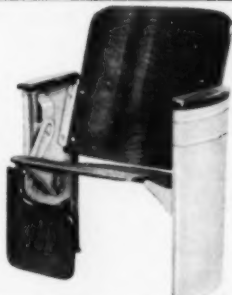
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more of these functions to be done at one time. One section prepares low cost, nourishing baked dishes and rolls, pies and cakes which appeal to students' appetites, while in another section, accurately controlled heat allows meats to roast at LOW TEMPERATURE to minimize shrinkage and to permit more servings per pound. BLODGETT'S flexibility affords a good, varied menu, and means dietitians can deliver nutritious meals to students at prices they can afford to pay.



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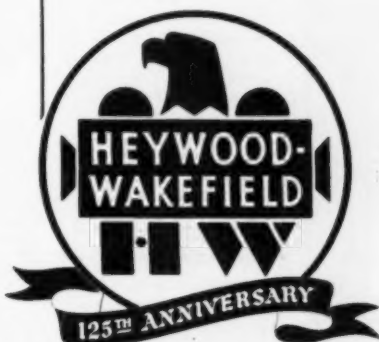
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NEWS.

were treated in conjunction with each other.

Clothing, clothing upkeep, and laundry ranked fourth. These items amounted to \$10,247.50, or 11.8 per cent of the total amount, and averaged \$204.95. The estimated expenditure for single women was \$327.99; for single men, \$143.75; for married students, \$182.87. Single women spent three times as much money for clothing as for upkeep and laundry. Married students spent twice as much, and

single men spent one-fourth more for clothing upkeep and laundry than for the purchase of clothing.

A total of \$7,679.85, representing 8.8 per cent of all expenses, was spent for recreation, averaging \$153.60. Single men averaged \$217.32; married students, \$150.12; single women, \$145.33.

Transportation ranked only eighth in total expense, amounting to \$2,094.44, or 2.4 per cent, excluding automobile expense. The least expen-

sive and commonest means of transportation was public service, used by 61.4 per cent of the sample. The average expenditure was \$40.89.

The remaining categories amounted to only 11.3 per cent of the grand total expenditure of \$86,961.45. These included: health services (physicians' services, emergency medical care, dental services, psychiatry help, and pharmaceutical supplies) which averaged \$73.86 per student; correspondence and gifts, a \$46.24 average; personal beauty and barber care, \$35.33; tobacco, \$25.66; church and other contributions, \$16.11; insurance, \$9.37; income tax, \$8.08, and professional dues, \$8.29.

The study shows a very considerable sum of money is brought into the New Orleans area by out-of-town students who come to further their social work education. If the \$86,961.45 total figure spent by the 50 students were to be extended to include the 98 full-time, out-of-town students of the school, the total expenditure would be \$170,444.54.

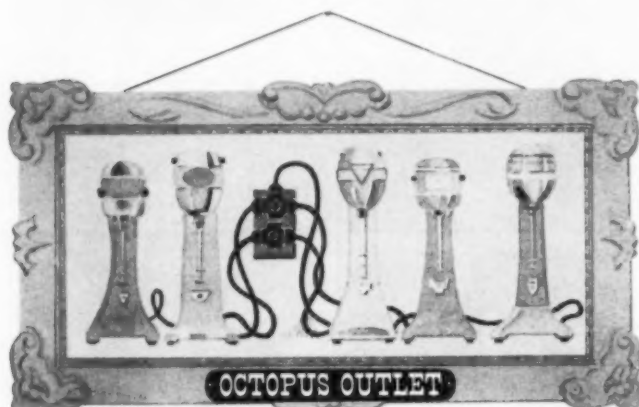
North Carolina Methodist Colleges to Receive Fund

ASHEVILLE, N.C. — The Western North Carolina Conference voted to give \$1,500,000 to the state's four Methodist colleges upon the recommendation of the commission of world service and finance and the board of education at the recent conference session. Methodists in the eastern half of the state will be asked to approve a campaign for an additional \$1,000,000 at a subsequent meeting.

The \$2,500,000 will be divided among four colleges—\$600,000 for buildings at Greensboro College, \$500,000 for buildings and \$300,000 for endowment at High Point College, \$700,000 for buildings at Brevard College, and \$250,000 for buildings and \$150,000 for endowment at Louisville College.

Tuition Fees to Increase

ST. LOUIS.—A 17 per cent increase in tuition will be initiated at Washington University, Dr. Arthur H. Compton, chancellor, has announced. Most divisions in the university will add \$37.50 to present tuition schedules next September. Dr. Compton declares that the university has already dipped deeply into its reserves.



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NEWS

NAMES IN THE NEWS



D. W. Malott

Deane Waldo Malott, chancellor of the University of Kansas since 1939, has been named president of Cornell University and is expected to take office July 1. During the interim, Dr. Theodore P. Wright, vice president for research, will serve as acting president.

Mr. Malott succeeds Dr. Edmund E. Day, who resigned as president of Cornell in June 1949 but who continued as chancellor until his retirement in January 1950.

R. W. Bokelman, assistant business manager of the public schools of South Bend, Ind., has been named to succeed G. O. Lindgren as business manager of the University of Kansas City. Mr. Lindgren has been named administrator of Trinity Lutheran Hospital of Kansas City, Mo.

Clarence Q. Berger, director of public affairs at Brandeis University, has been appointed executive assistant to the president. He will assume many of the administrative duties of the president, Abram L. Sachar, and will coordinate administrative units and university activities.



C. O. Berger

James L. Madden, vice president of the Metropolitan Life Insurance Company, has been named to serve as acting chancellor of New York University. Mr. Madden assumed his new duties January 1 when Dr. Harry Woodburn Chase, present chancellor, began his terminal leave prior to his retirement on July 1. Mr. Madden will serve as acting head of the university until Dr. Chase's successor is named.

Maj. Gen. William J. Donovan, wartime director of the Office of Strategic Services, has been appointed chairman of Columbia University's council on development and resources. This council will coordinate all development activities at the university.

Thomas I. Parkinson, president of the Equitable Life Assurance Society, has been appointed national chairman of the eighth annual campaign of the United Negro College Fund. The campaign will open in April.

Rev. Harold C. Case, minister of the First Methodist Church of Pasadena, Calif., has been elected president of Boston University to succeed Dr. Daniel L. Marsh, who resigned February 1 after 25 years as president of the university. Dr. Marsh will continue to serve in an advisory capacity as chancellor.

Robert P. Briggs, vice president of the University of Michigan since 1945, resigned January 22 to accept appointment as vice president and director of Consumers Power Company of Jackson, Mich. In his position with the university, Mr. Briggs was instrumental in developing a \$20,000,000 plant expansion program. Dr. Wilbur K. Pierpont, controller at the university since 1947, has been named to succeed Mr. Briggs as vice president in charge of business and finance.

Rev. George F. Ivey, former pastor of the Noel Memorial Church of Shreveport, La., recently was appointed

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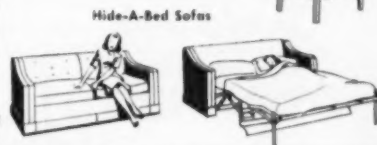
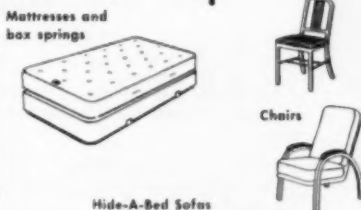
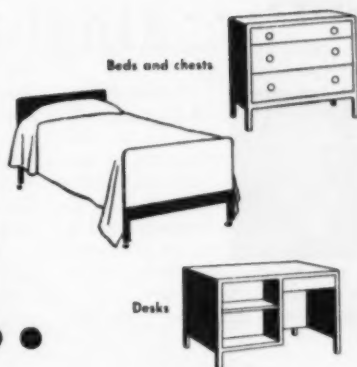
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NEWS

vice president of Centenary College, Shreveport.



R. M. Kimball

Robert M. Kimball, executive assistant to the president of Massachusetts Institute of Technology, has been appointed director of business administration at the institution. In his new post Mr. Kimball will direct the department

of buildings and power, the office of housing and dining services, the personnel office, and the safety office. He also will serve as chairman of the building committee of M.I.T.

Royal F. Netzer, dean of Geneseo State Teachers College in New York, has been named president of Oneonta State Teachers College, Oneonta, N.Y. Dr. Netzer's appointment became effective February 1 when Dr. Charles Hunt retired as president at 70 years of age.

Willard I. Emerson, New York investment banker, has been named vice president for development of Cornell University. He succeeds Asa



W. I. Emerson

Knowles, who recently resigned to accept appointment as president of the University of Toledo. Mr. Emerson long has been active in Cornell alumni activities and is a recent chairman of the alumni gift committee.

Deward W. Smythe, assistant comptroller of DePauw University, Greencastle, Ind., has been named comptroller to succeed H. H. Brooks, who resigned last August to become business



D. W. Smythe



F. DeVaney

manager of Coe College. Frank DeVaney, chief accountant of the university, was appointed to the post of assistant comptroller. W. J. Eckhardt has been named purchasing agent for DePauw.

Robert C. Clothier, president of Rutgers University, recently submitted his resignation to the board of trustees with the request that it become effective at the end of the current academic year, or earlier, if possible. He has been president of Rutgers since 1932.

Rev. Richard E. Shearer, pastor of the First Baptist Church, New Brunswick, N. J., has been appointed to the presidency of Alderson-Broaddus College at Philippi, W.Va. He will succeed former president John Wesley Elliott, who resigned last spring.

Lt. Gen. Troy H. Middleton, comptroller of Louisiana State University, has been elected president of the university following the resignation of Dr. Harold W. Stoke. Dr. Daniel Borth has been appointed comptroller.

Claude E. Puffer, dean of administration of the University of Buffalo, has been named to succeed George D. Crofts as comptroller and treasurer when Mr. Crofts retires June 30. Mr. Crofts has been treasurer and comptroller of the university for 30 years.

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RUBBER FLOORS
LINOLEUM FLOORS
COMPOSITION FLOORS
TERRAZZO FLOORS
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BRITEN-ALL is ONE floor cleaner that answers your floor cleaning problems for ALL types of floors.

BRITEN-ALL is safe, for despite its superior cleansing qualities, it is a neutral cleaner that will not injure any type of flooring.

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A scientifically balanced waterproof heavy duty floor finish that dries to a bright uniform lustre without polishing. Use it in cooperation with BRITEN-ALL to protect your floor investment.

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The best typing posture is one that is natural and comfortable for you. To gain this posture, follow these simple principles:

1. Adjust the height of your chair so that your feet are flat on the floor when you are seated directly in front of the typewriter. The back rest should support you comfortably.

2. Sit so your arms incline slightly forward from the shoulder and your forearms assume the same upward slope as that of the IBM keyboard. Your wrists should be slightly lower than your knuckles; your fingers should curve naturally toward the keys.

CHECK YOUR TYPING POSTURE AGAINST THIS PICTURE OF STELLA PAJUNAS, WORLD'S CHAMPION SPEED TYPIST.

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☐ We would like _____ copies of the revised IBM Typing Guide.

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NEWS.



W. F. Powell

W. Frank Powell, sales and purchasing representative for two commercial concerns in the scientific apparatus and chemicals field, has been

named purchasing agent of Alabama Polytechnic Institute, according to an announcement by W. T. Ingram, business manager of A.P.I.

Dr. Francis H. Green, headmaster emeritus of the Pennington School, Pennington, N.J., died January 23 at the age of 90. He collapsed while attending a special convocation.

Rev. John W. Dunning, former president of Alma College, Alma, Mich., died recently at the age of 69 years. His term as president extended from 1938 to 1942.

W. W. Isle, president of Eastern Washington College of Education at Cheney, Wash., died in mid-January as the result of a heart attack. Dr. Isle had been president of the college since 1945.

Rev. Henry Tucker Graham, former president of Hampden-Sydney College in Virginia, died recently at 85 years of age. He had been president of the college from 1908 to 1917.

DIRECTORY OF ASSOCIATIONS

Association of College and University Business Officers

Central Association

President: John K. Selleck, University of Nebraska; secretary-treasurer: C. C. De Long, University of Illinois.
Convention: April 29-May 1, Purdue University, Lafayette, Ind.

Eastern Association

President: D. L. Rhind, Massachusetts Institute of Technology; secretary-treasurer: Irwin K. French, Middlebury College, Middlebury, Vt.
Convention: Dec. 9-11, Chalfonte-Haddon Hall, Atlantic City, N.J.

Southern Association

President: Jamie R. Anthony, Georgia Institute of Technology; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.
Convention: March 29-31, University of Chattanooga, Chattanooga, Tenn.

Western Association

President: Elton D. Phillips, University of Southern California; secretary-treasurer: James M. Miller, University of California.
Convention: May 21 and 22, Santa Barbara, Calif.

American Association

President: W. A. Hamilton, Lincoln University; secretary: L. H. Foster Jr., Tuskegee Institute.
Convention: May 7 and 8, Virginia State College, Petersburg, Va.

Association of College Unions

President: Duane E. Lake, University of Nebraska; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.
Convention: April 25-28, Michigan State College, East Lansing.

Association of Physical Plant Administrators of Universities and Colleges

President: E. J. Behler, Yale University; secretary-treasurer: A. F. Gallistel, University of Wisconsin.
Convention: May 14-16, University of Oklahoma, Norman.

American College Public Relations Association

President: Stewart Harral, University of Oklahoma; secretary-treasurer: James W. Armsy, Illinois Institute of Technology, Chicago.

College and University Personnel Association

President: Boynton S. Kaiser, University of California; secretary-treasurer: Ruth Harris, University of Illinois.
Convention: July 15-18, Pennsylvania State College.

National Association of College Stores

President: Ralph Stilwell, UCLA; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.
Convention: April 29-May 2, Columbus, Ohio.

National Association of Educational Buyers

President: Rev. J. Leo Sullivan, S.J., College of the Holy Cross; executive secretary: Bert C. Ahrens, 45 Astor Place, New York, N.Y.
Convention: May 2-5, Statler Hotel, Detroit.

WANT ADVERTISEMENTS

POSITIONS WANTED

Administrative Position in a college or large school sought by attorney; A.B. and L.L.B. Degrees; considerable experience in corporate and tax matters; salary secondary. Write Box CW40, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager, Treasurer or Purchasing Agent Unusual combination of experience gained in business and college administration, including personnel, finances, purchasing, dining hall and cafeteria operation, maintenance, office routine, accounting and general operation; college degree; wishes to locate in an eastern state; salary secondary. Write Box CW28, COLLEGE AND UNIVERSITY BUSINESS.

Business Officer Sixteen years' experience as small college business manager; desires position as comptroller, head accountant or assistant business manager in larger college; has M.A. in Commerce. Write Box CW31, COLLEGE AND UNIVERSITY BUSINESS.

College Business Officer Bachelor's and Master's Degree in Business Administration, desires position of responsibility; 23 years' business administrative experience including 3 years registrarship experience in a denominational, teachers' and a state college; familiar with federal funds; broad experiences including construction supervision and excellent references; available on short notice. Write Box CW27, COLLEGE AND UNIVERSITY BUSINESS.

Physical Plant Administration—Graduate licensed engineer; experience in fire protection engineering and college plant maintenance, operation, development planning and construction supervision. Write Box CW22, COLLEGE AND UNIVERSITY BUSINESS.

Physical Plant Manager Competent superintendent of buildings, grounds and farm; experienced in heavy construction and in utilities maintenance; with a knowledge of power plant operation and of administrative ability inclusive of purchasing; having served many years in college enterprises. Write Box CW32, COLLEGE AND UNIVERSITY BUSINESS.

Secretary Experienced secretary to college president; well trained; competent; works well with others; desires position which requires executive ability; details of training and experience upon request. Write Box CW29, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds—Seven years in present position; practical experience in all phases of construction and maintenance; previous experience, assistant engineer in large department store and maintenance man in large factory. Write Box CW6, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Manager University food service will be open beginning July 1, 1951; salary six thousand plus room and board free certain conditions. Apply President of UNIVERSITY OF ALASKA, College, Alaska.

The rates for want advertisements are: 10 cents a word; minimum charge, \$2.50.

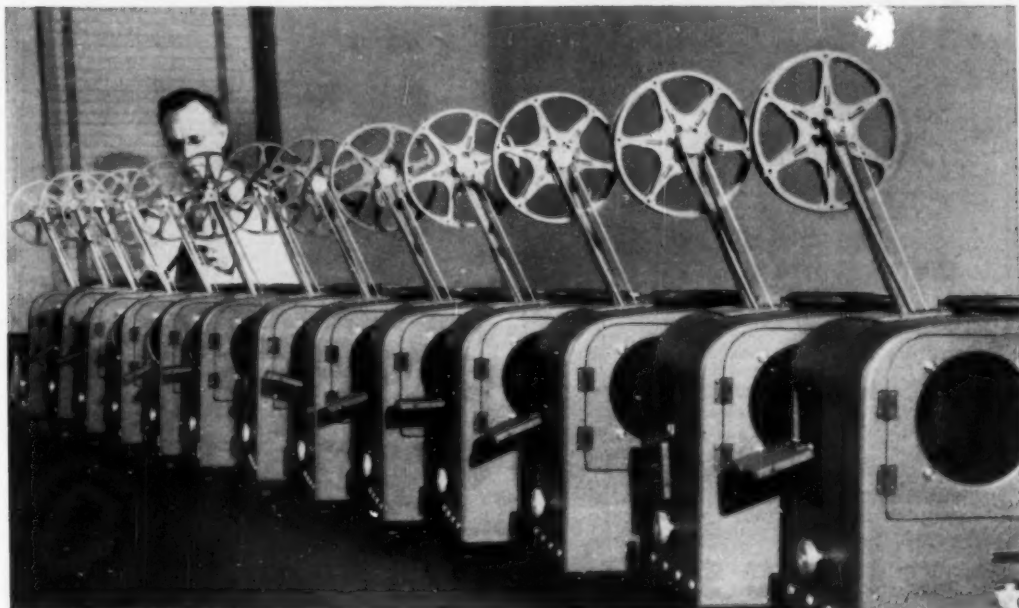
Address replies to

COLLEGE AND UNIVERSITY BUSINESS

919 N. Michigan Avenue, Chicago 11, Ill.

Filmosound

Unanimous Choice of Mason City* Schools



Audio-visual education is no newcomer to Mason City, Iowa public schools. It has been used with marked success since 1940.

Some measure of the faith with which Mason City school officials view audio-visual education is evidenced by their recent purchase from Decker Bros., Inc., Mason City, of 13 Bell & Howell FILMOSOUNDS—one for each building in the city's fine public school system!

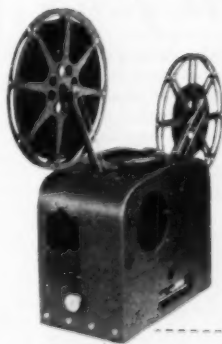
We salute these progressive school officials. Their determined effort to keep Mason City schools in the forefront with the most modern teaching techniques and tools deserves highest praise from alert educators and parents everywhere.

For your own school needs, investigate Filmosound. Pictures are truly life-like, brilliant. Sound is natural and undistorted. Filmosound gives you most hours of dependable, trouble-free performance. And it's completely suited to small classroom or big auditorium use. Consult your nearby Bell & Howell representative. He is trained to serve you.

Guaranteed for life. During life of the product, any defects in workmanship or materials will be remedied free (except transportation).

*One in a series of Bell & Howell advertisements saluting educators and their use of modern audio-visual education in the public, private and parochial schools of America.

*Mr. Lyell Moore, director of curriculum and audio-visual education, Mason City, Iowa public schools, inspects 13 Bell & Howell FILMOSOUNDS recently purchased for use in that progressive city's school system.



Single-Case Filmosound for 16mm sound or silent film. Safe Lock sprockets guard film, make threading easy—governor controlled gear drive—natural, flutterless sound—perfectly aligned optical system for maximum illumination. Weight 35½ pounds. Built-in 6 inch speaker operates with in the case or removed from it. Larger separate speakers available for single or multiple use. With 6 inch speaker only, \$449.95.

Price subject to change without notice.

You buy for life when you buy

Bell & Howell

Vol. 10, No. 2, February 1951

Send
Now for
FREE
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Bell & Howell Company
7192 McCormick Road, Chicago 45, Illinois

Please send me your free booklet "FREE FILM SOURCES."
I understand this places me under no obligation.

Name _____

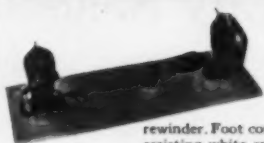
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For Efficient Film Handling



MOTOR REWINDS

Model PD-1 saves time, labor. Equipped with ball bearing, power-driven motor, throw-out clutch for reversing and brake-end geared hand rewinder. Foot controlled. Mounted on acid-resisting white enameled panel—40" x 13". A sturdy, complete unit.

RACKS AND CABINETS

Neumade's de luxe storage equipment is offered in a complete line of handsomely finished steel cabinets and racks to preserve and protect your film.



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REELS	RACKS	SPICERS
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From coast to coast, leading schools recognize Peterson's reputation for quality furniture for laboratory, home making and library departments. What ever your requirements may be, call on Peterson's experts for an economical solution to your problems... No obligation is incurred.

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Big, Comfortable Chairs

That fold.



Beautifully styled, light, easy to move, upholstered in Neugyde, bonded rubber cushions. Die-cast Magnesium frames and patented folding mechanism assure great strength for long service.

Look like conventional chairs, but fold compactly for storage.

Ask for catalog showing complete line of wood and Magnesium models.

MODEL 482
MAGNESIUM

FOLDS
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THE
SOLID COMFORT
FOLDING CHAIR

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ESTABLISHED 1881 • FINE FURNITURE THAT FOLDS

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NEW, MODERN
FUNCTIONAL UNITS

37
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EICHENLAUBS
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ESTABLISHED 1873



**WHY THIS BEAUTIFUL FLOOR
WILL STAY BEAUTIFUL
YEAR AFTER YEAR...**



Above: Terrazzo corridor, Bloomfield Junior High School, Bloomfield, New Jersey.

The original beauty and color of this floor is permanently protected by Hillyard Care against surface wear. No danger of damage from dirt, daily traffic—no soiling from spilled foods, liquids—no fear of slipping accidents. Hillyard's exclusive penetrating ONEX-SEAL seals out dirt—provides the hard, glossy, slip-resistant surface you see above—to resist scuffs, scratches, spots. It's waterproof... is easily maintained with Hillyard's SUPER SHINE-ALL neutral chemical, no-rinse cleaner.

Hillyard's specialized floor treatments, sanitation, maintenance products and efficient machines, are particularly adapted to school needs. Quick-acting, work-saving, they get the job done "on schedule" without fuss, muss or noise to disturb pupils—and with a minimum of employed labor.

**WELCOME
A. A. S. A. MEMBERS
TO THE
HILLYARD BOOTH
G-1-3-5-7
Atlantic City—Feb. 17-22**

... on your staff
but not your payroll



At Your Service....

Hillyard's staff of trained Maintainers. Will show you practical ways to speed room clean-up, corridor polishing, keep entire school clean and neat—at savings up to 50%. In key cities, coast to coast. No charge.

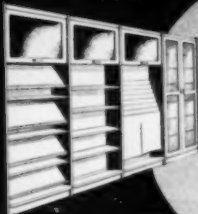
FREE FOLDER

Write Hillyard Dept. D-2 for helpful free folder on care of terrazzo floors.



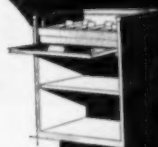
Here it is!

Sjöström's Sparkling 1951 Catalog On *New Life* Library Furniture



And it's yours for the asking. It's styled the way many of you requested... packed with LARGE photos and drawings... complete with descriptions and specifications.

Its four complete sections, 28 pages, cover every type of furniture from Atlas Cases to Work Room Units. And, its make-up conforms to the arrangement suggested by the many Librarians, Architects and Educators to whom the plans were submitted prior to printing.



To get your copy of Catalog L-50, just write to us at the address below. We will send it at once—at no cost, of course.



JOHN E. **SJÖSTRÖM** COMPANY
1717 N. Tenth Street, Philadelphia 22, Pa.



**'The bonds Lila and I bought
for our country's defense helped us
to own our own home!'**

**HOW U. S. SAVINGS BONDS PAID OFF FOR
SELDEN AND LILA ROBINSON OF DENVER, COLORADO**

"Bond saving made it possible for me to become a home owner," says engineer-sportsman Selden Robinson, "then helped me to improve on my original investment through the purchase of a better home. My story should encourage every man who dreams of a house of his own."



"We started our bond buying program before the war, purchasing two \$18.75 bonds a month through the Payroll Savings Plan at the Stearns-Roger Manufacturing Co. When war came, we gave up our dream home for the duration and were glad our bonds went for our country's victory."



"Bonds paid \$2800 down on a house in 1945. They provided \$500 toward a new car. And this year when we traded our first house for a new brick one, bonds paid the difference. We had the money only because of our systematic bond buying program."



"We've saved \$4,000, and now we're buying bonds toward a college education for our two daughters, Emily, 15 and Carol, 8. There's no surer savings program than Payroll Savings and U. S. Savings Bonds which are backed by the greatest action on earth!"

The Robinsons' story can be your story, too!

**FOR YOUR SECURITY, AND YOUR
COUNTRY'S TOO, SAVE NOW—
THROUGH REGULAR PURCHASE OF
U. S. SAVINGS BONDS!**



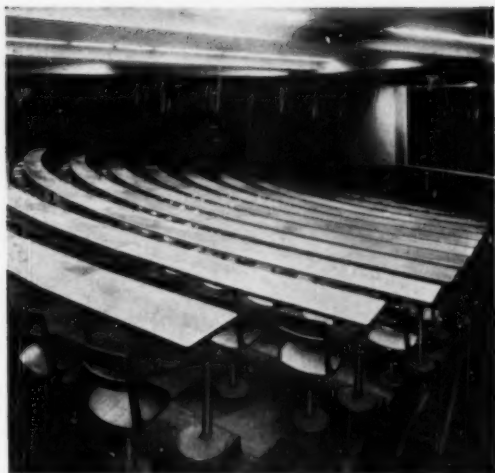
You can make your dream come true, too—just as the Robinsons did. It's easy! Just start *now* with these three simple steps:

- 1.** Make one big decision—to put saving *first*, before you even touch your income.
- 2.** Decide to save a regular amount *systematically*, week after week or month after month. Even a small sum, saved on a systematic basis, becomes a large sum in an amazingly short time!
- 3.** Start saving automatically by

signing up *today* in the Payroll Savings Plan where you work or the Bond A-Month Plan where you bank. You may save as little as \$1.25 a week or as much as \$375 a month. If you can set aside just \$7.50 weekly, in 10 years you'll have bonds and interest worth \$4,329.02 cash!

You'll be providing security not only for yourself and your family but for the free way of life that's so important to us all. And in far less time than you think, you'll have turned your dreams into reality, just as Selden and Lila Robinson have done.

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New Universal Angle Tables solve many lecture-room problems of visibility, convenience, and cleaning

College and university authorities report unqualified satisfaction with the new American Universal Angle Tables and Pedestal Chairs—a combination that offers many advantages not found in other lecture-room furniture:

1. All students can see the instructor.
2. The instructor can see all students.
3. Cleaning around pedestals is easy and fast.
4. Pedestal chairs fixed to floor can't be pushed back to clutter passageway behind each row.
5. Swivel chair provides greater freedom to perform, besides easy ingress and egress.

FOR LARGE OR SMALL ROOMS. Universal Angle Tables and Pedestal Chairs are equally practical for large or small lecture rooms, with or without floor risers. The angles of the tables accommodate any radius. Offset steel pedestals afford ample leg room. Table-tops are of urea-resin-bonded plywood, durably lacquered in natural light finish. Tables 29" high, in widths from 16" to 24", and in lengths as desired. Write for complete information.

American Pedestal Chair No. 406

Cradleform posture seat has deep-curved back with self-adjusting lower rail to fit each occupant. Seat swivels 45° either way. Height adjustable from 14" to 17". All metal parts finished in dipped, baked enamel.



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Manufacturers of School, Auditorium,
Church, Theatre, Transportation, Stadium Seating, and Folding Chairs

better than ever

VUL-COT
TRADE MARK

**Waste
Baskets**



**—reduce—
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costs!**



New Vul-Cots give you life-time service—colors don't chip off, rims don't break. Made of hard vulcanized fibre they are light weight, noiseless, durable and attractive. Our exclusive bonded seam construction

gives added strength—improves appearance. Easy to handle—easy to clean—they don't crack, splinter, dent, rust or corrode—are guaranteed for 5 years. Vul-Cots cut your maintenance and replacement costs. Write today for catalog price sheet —Dept. CU-2.

The Round Taper—most popular of all Vul-Cots for general use. Takes up small space, is neat and attractive. Two sizes, Nos. 2 and 3.

The Square Taper—a distinctive style, popular with executives and ideal for reception or meeting rooms. One size, No. 5.

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Colors—All sizes made in standard colors—maroon, brown and olive-green. Gray also available for use with gray office furniture.

**National
VULCANIZED FIBRE CO.**
Wilmington Delaware



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SILVER SKILLET READY-TO-SERVE CANNED MEATS

- Corned Beef Hash
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- Pork in Barbecue Sauce

Here is the answer to your menu problem. Delicious, taste-tempting meat entrees. Prepared by experts to exacting standards of goodness!

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ECONOMICAL . . . PERFECT FOOD CONTROL
UNIFORM HIGH QUALITY AND GOODNESS

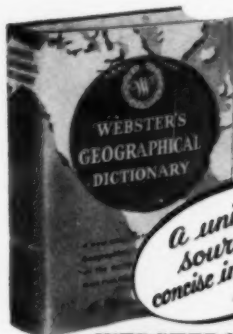
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COMPLAINTS!**

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NEW YORK • LOS ANGELES • TORONTO
Offices in over 50 Cities • Established 1891

POWERS

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Hot Water Line Control • Dishwashers, Steam Tables, Cooking
Kettles, Coffee Urns • Storage Rooms • Drinking Water Cooling

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Thirty years of planning and advising on food service have shown us that the success of any such undertaking depends upon three fundamental factors. Our new free booklet "3 Steps to Food Service Success" will not only explain these three vital points, it will tell you how to avoid the dangerously high operating costs you're bound to have if they're overlooked. If you're planning a food service project or thinking about enlarging or modernizing your present establishment, we urge you to send for this free booklet immediately. It may save you thousands of dollars. Remember, it's absolutely free, and there's no obligation. Just write...

FRED SCHMID ASSOCIATES
8480 BEVERLY BLVD., LOS ANGELES 48, CALIFORNIA

COLLEGE and UNIVERSITY BUSINESS

CROTTY MANAGEMENT *can solve* **YOUR DINING HALL PROBLEMS**

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This gives an immediate control of dining hall costs and relieves administration of all the other trials and tribulations. For, under supervisory direction, a complete Crotty-trained

staff takes over all the duties . . . functions efficiently as a school group to assure economical operation, excellent food and needed continuity of responsible management.

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303 SOUTHLAND ANNEX BLDG., DALLAS, TEX.

*MODERNIZE your dining hall operation now.
Write for details of this Crotty Plan to—*

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FOR CAFETERIAS • LIBRARIES • CLASSROOMS • ASSEMBLY ROOMS



No. 326 Table—Available in every size, for every purpose, this sturdy table features a Natcolite top, surfaced with lifetime NEVAMAR . . . resistant to cigarette burns, stains, boiling water. Won't chip or crack. Easy to keep clean.

NATCOLITE tables and chairs are ideally suited to the needs of schools, colleges, institutions . . . wherever good looks, comfort and durability are essential.

No. 643 Chair—A sturdy, saddle-seat chair with many exclusive features of construction. Built to withstand daily rigorous use.



Juvenile and Upholstered Chairs Also Available

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VISIBILITY



...in MICHAELS DISPLAY CASES

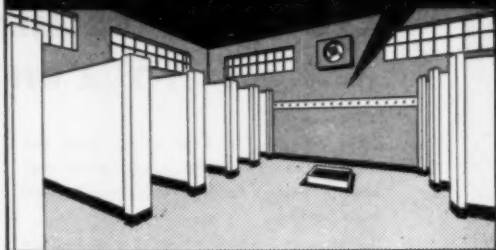
Michaels "Time-Tight" Cases not only offer maximum visibility, but actually accentuate the beauty of exhibits. These cases are made of extruded bronze or aluminum, and are outstanding in appearance and quality. Innerlocking frames, an exclusive Michaels feature, prevent handling and theft, and reduce the amount of dusting necessary to keep exhibits clean. Cases are made in several styles; there are table cases, wall, aisle, suspended and recessed cases in sizes to meet every requirement. Michaels numbers among its customers many colleges and universities. Write for fully illustrated booklet.

MUSEUM CASE DIVISION OF

The MICHAELS ART BRONZE CO., Inc.
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Manufacturers since 1870 of many products in Bronze,
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**Eliminate paint problems
in locker and shower rooms!**



Wherever you have paint problems due to moisture, they can be solved completely and economically with RAMUC® MILDREW-PROOF ENAMEL. Made especially for the purpose, this long-lasting enamel has a waterproof, chlorinated rubber base that withstands continuous exposure to steam and hot water—never blistering, peeling or fading.

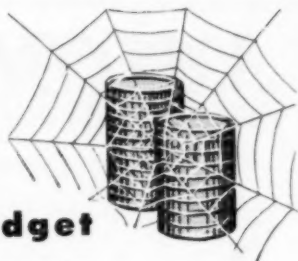
Mildew-proof, easy to clean!

Furthermore, RAMUC contains a special fungicide that actively prevents the formation of mildew and eliminates musty, unsightly growths. Its hard, tile-like finish makes cleaning easy, too. Scrubbing and caustics will never dull RAMUC's smooth, sparkling appearance. And because one application lasts for season after season, you enjoy real dollar savings! For full information, write for Folder #582, today! *Trademark

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**Don't
even
touch
your budget**



Your school can have the standardized, time-saving protection of Dudley Locks, without spending a cent from school funds. Just use Dudley's Self-Financing Plan, successfully used by schools everywhere. Write for details.

When you write, ask for the Catalog Folder that tells all about the locks shown here, and about S-540, the built-in, Master-Keyed Lock with 15-second combination change.



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RD-2**

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P-570**



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COLLEGE and UNIVERSITY BUSINESS

HERRICK

STAINLESS STEEL REFRIGERATORS

PERFORMANCE-PROVED

AT

The Fred Harvey Restaurant

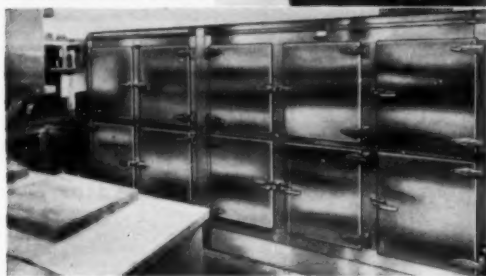
IN KANSAS CITY, MO.



Above: Kansas City's famous, busy Union Station.

Right: The picturesque Westport Room in the station's popular, comfortable Fred Harvey Restaurant.

Below: HERRICK Stainless Steel Reach-in Refrigerators serving Fred Harvey's modern kitchen.



Fred Harvey is renowned throughout the Southwest for excellent cuisine on famous trains and in hotels and restaurants. One of his finest dining places is in Kansas City's Union Station. Contributing to the preparation and serving of food in this key restaurant are four HERRICK Stainless Steel Reach-In Refrigerators. HERRICKS were chosen because they offer that extra value...in convenience to the chef...in superb performance...in rugged durability not found in any other refrigerator. Learn the full HERRICK story. Write for name of your nearest HERRICK supplier.

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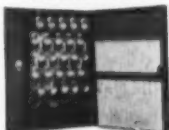
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Modern Instruments



FOR *Modern* INSTRUCTION

- Self Shielded
- High Accuracy
- Easy to Read

Modern Weston instruments bespeak the progressive spirit that welcomes refinements while retaining that which has been proved basically sound. These matched Model 901 portables, for example, incorporate incomparable Weston movements, housed in rugged, ribbed bakelite cases with curved wide-angle windows. By eliminating side shadows, this distinctive style of unbreakable window enhances scale illumination even under difficult lighting conditions.

Instruments in the Weston Model 901 matched group are self shielded against external magnetic fields... are accurate within $\frac{1}{2}$ of 1%... tolerate wide fluctuations in temperature. They are available as d-c voltmeters, ammeters, milliammeters or microammeters; as a-c rectifier type voltmeters; and as a-c voltmeters, ammeters, milliammeters. Further details are given in Circular A-22-B, available through your Weston Representative—or from Weston Electrical Instrument Corporation, 586 Frelinghuysen Avenue, Newark 5, New Jersey... makers of Weston and Tagliabue instruments.

WESTON
Instruments

SCHOOLS Are Vitrally Concerned with AIR INFILTRATION through Windows

PITTSBURGH TESTING LABORATORY

REPORTS ON



AIR INFILTRATION

This report states simply and convincingly that air infiltration through our Auto-Lok window was only

"0.095 cfm per foot at a static pressure equivalent to 25 mph."

A CLOSURE TEN TIMES AS TIGHT

Yes, air infiltration of only 0.095 cfm is equivalent to a **CLOSURE TEN TIMES AS TIGHT** as the established standards for casement windows and projected sash.

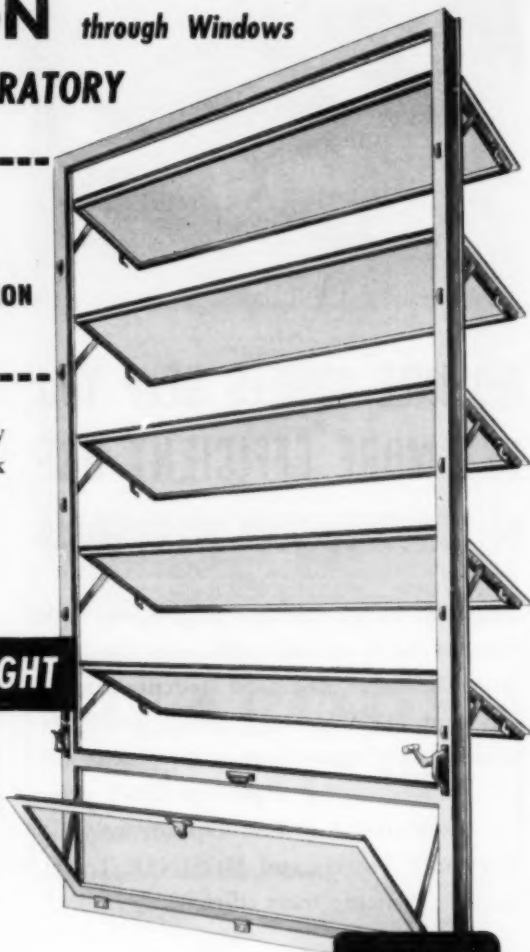
AT LAST! Year 'round pupil comfort. Auto-Lok's tight closure eliminates dangerous "cold spots" common to most windows...and when you want it, 100% ventilation...even when it's raining... with just a few simple turns of the operator.

AUTO-LOK, the all-climate awning window, is fast becoming the first choice with schools the country over, because it:

- reduces air infiltration to a minimum.
- reduces maintenance costs.
- slashes fuel bills.
- makes air conditioning more economical.
- provides positive protection against all climatic extremes.
- assures draft-free ventilation...even when it's raining.
- can be cleaned entirely from the inside.

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Many architects are taking advantage of Ludman engineering service. Our capable engineering staff is called upon daily to solve intricate school window problems... they will be delighted to work with you at any time!



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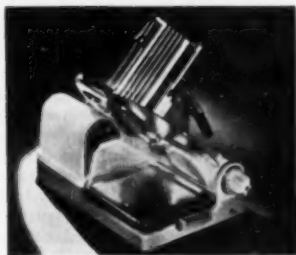
WHAT'S NEW

February 1951

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 92. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Portion Slicer



The Quick-Weigh Estimator is a feature of the new Toledo Slicer recently introduced. Known as the Toledo Profit-Angle Slicer, Model 5400, the unit makes it possible to know the approximate weight of slices or portions being cut for service, thus simplifying portion control. A dual-purpose light on the new model operates automatically when the motor switch is turned on, illuminating the working area of the Estimator receiving platter and indicating that the knife is operating.

All parts contacting food are of stainless steel or anodized aluminum. The slice gauge has 75 thickness settings and the slicer is constructed for ease of operation and speed and safety in cleaning. The stainless steel knife is protected by a two-piece knife guard. **Toledo Scale Co., Dept. CUB, 1023 Telegraph Rd., Toledo 12, Ohio. (Key No. 176)**

De-Aerated Ice Ribbons

A feature of the new model York DER-11 FlakIce machine is a device to de-aerate the ice ribbons made by it. It is stated that the air in ordinary ice tends to flatten carbonated beverages. Thus the new de-aerated ice lengthens the life of such beverages and the ice is clear and translucent. The new model has all of the other features of the earlier models and is capable of producing the same quantity, a ton of ribbon ice per day. **York Corporation, Dept. CUB, York, Pa. (Key No. 177)**

Electric Hand Dryers

The complete line of Sani-Dri electric hand and hair dryers has been improved to provide shorter drying time. A new,

faster-drying heating element and a new, smaller oval nozzle which produces a more concentrated, quicker drying air stream are features of the redesigned line. The drying nozzle is obtainable in either swivel or fixed position.

Another feature of the improved machines is an instant starting, heavy duty switch. The new push-button switch is available on the semi-recessed wall model in place of the recessed foot switch, if desired. A simplified timing device has also been introduced in the new models and the machines are equipped with a sealed, ball-bearing motor requiring no lubrication. The improved features of the new machines are interchangeable with the parts in old machines purchased since 1929. **The Chicago Hardware Foundry Co., Dept. CUB, North Chicago, Ill. (Key No. 178)**

Cleaning Mitt



A heavy-duty mitt that can be used wet or dry has been developed for use in washing, dusting and polishing of metal, wood, ceramic, plastic and other surfaces. It is designed for hard usage and to withstand repeated laundering. Use of the mitt speeds up cleaning, dusting and polishing operations and simplifies the work. **American Standard Mfg. Co., Dept. CUB, 2511 S. Green St., Chicago 8. (Key No. 179)**

Hartshorn Plastic Window Shades

Made of vinyl film, the new Hartshorn Plastic Window Shades are washable, colorfast, waterproof, insectproof, fire resistant and will not crack, fray or pin-hole. The shades have been field tested and are available in white, ivory, beige and green. Sizes include 36 inch by 6 feet and 36, 42 and 48 inch by 7 feet. **The Stewart Hartshorn Co., Dept. CUB, 250 Fifth Ave., New York 1. (Key No. 180)**

Fireproof Paint Remover

A new non-inflammable paint and varnish remover is available for quick removal of paint and varnish from wood surfaces. Known as Kurl-Off, the product spreads smoothly and quickly and dissolves the finish without hurting the wood. In 10 to 15 minutes the old finish lies loose on top of the wood, ready for removal.

The new product contains no alkali, mineral acids, water, benzol or carbon tetrachloride and no after-rinse is required. It is non-corrosive, non-staining and safe on all wood surfaces since it cannot burn or explode. It can also be used effectively on metal. **Hillyard Chemical Co., Dept. CUB, St. Joseph, Mo. (Key No. 181)**

Sanding Machine

A new sanding machine which quickly and efficiently performs rough, medium and fine finish sanding is being introduced. Known as the Clarke Smoothie Sander, the machine is light in weight and will operate easily in horizontal, vertical or overhead positions. It can be used in close quarters and performs right up to corners and trim. It will sand flat or curved surfaces, metal or wood, and saves a maximum of time over hand sanding.

The new machine is powered by a General Electric motor, cooled by double fans. It has a 1/4 inch sponge rubber pad and rubber mountings to absorb downward thrust. Sandpaper is held tightly over the pad by a simple, positive spring clamp finished in nickel. The sander is finished in baked enamel over rust-



proofed steel. **Clarke Sanding Machine Co., Dept. CUB, Muskegon, Mich. (Key No. 182)**

Educator Delineascope



The new Educator 150 Delineascope is designed specifically for projecting filmstrips and 2 by 2 inch slides in small and medium sized rooms and should be well adapted for classrooms, meetings and general viewing. Change from slides to filmstrip or vice versa is accomplished instantly, merely by removing or replacing the filmstrip unit. High light output is achieved from an economical 150 watt bulb and two-element aspheric condensing system. The three objectives available are balanced for fine reproduction in color or black and white. Coolness in operation, for comfort in handling and safety of films, is another feature of the Educator 150. The unit is available with or without a lift-off carrying case. American Optical Co., Dept. CUB, Buffalo 15, N.Y. (Key No. 183)

Mop Wringer Combination

A stainless steel pail with the efficient "Squeeze-Easy" wringer attached is a new mop wringer combination recently introduced. The pail is ruggedly constructed for long wear, is easy to clean and maintain and provides ample work space. It rolls smoothly on 2 inch solid rubber casters, is leakproof and will not tip over. The streamlined wringer fits on the pail. It is of solid one-piece construction for lighter weight and greater strength. Non-squirting louvers make it impossible for water to splash out. A back floating plate slides forward to wring both large and small mops. Market Forge Co., Dept. CUB, Everett, Mass. (Key No. 184)

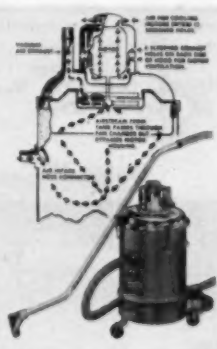
Floor Maintenance

A new line of floor maintenance materials is being introduced by Multi-Clean Products. Included are Multi-Clean Anti-Slip Waterproof Floor Wax for use on wood, asphalt tile, rubber tile, linoleum, concrete, terrazzo, magnesite and quarry tile floors to provide an easily applied, attractive, long-lasting, resilient finish which is not slippery; Multi-Clean Penetrating Sealer for wood floors to leave a smooth, resilient surface that requires less attention; Multi-Clean Floor Preserver which penetrates the fibers and cell structure of the floor to provide a

more durable flooring surface; Multi-Clean Neo-Dry Concrete Sealer with a rubber base which is an easily applied, fast-drying, durable finish for concrete floors or other concrete surfaces, and Multi-Clean Concrete Preserver with a bakelite base for use on either old or new concrete, indoors or outdoors, to eliminate chipping, flaking and dusting and to provide a tough, sanitary surface highly resistant to abrasion and to water, grease, oils, alkali or soap. All products in the new line are made to special formulas and are carefully compounded of finest ingredients. Multi-Clean Products, Inc., Dept. CUB, 2277 Ford Pkwy., St. Paul 1, Minn. (Key No. 185)

Portable Vacuum

The new Hild Portable Heavy Duty Vacuum Machine is designed for both wet and dry pick-up. It has a special safety feature to guard against damaging the unit which is the result of a specially developed type of power unit. The "by-



pass" motor does not depend on the vacuum air stream for cooling but has a separate, independent cooling fan which keeps the motor running cool, even when the vacuum intake is "sealed" against the floor carpet. Since the air stream from the vacuum does not pass through the motor housing, the motor cannot be damaged by dust or moisture picked up by the vacuum.

Other improvements in the new Hild Vacuum include ball-bearing swivel casters equipped with string-guards to keep the machine rolling freely, non-rusting swivel type hose connections for both vacuuming and blowing are permanently built-in, and a rack is provided for carrying and storing the hose when not in use. Newly designed attachments are available to adapt the new vacuum for use on all kinds of floors, rugs or carpets and for cleaning pipes, ceilings, walls, venetian blinds, machinery and other areas. Hild Floor Machine Co., Dept. CUB, 740 W. Washington Blvd., Chicago 6. (Key No. 186)

Laboratory Installation System

All piping and wiring for laboratory furniture installations can be done before the furniture is delivered with the new Pipemaster system, thus simplifying the work and eliminating the necessity for plumbers and electricians to work under the furniture to make connections. The Pipemaster system provides a service rack which is accessible from all sides so that complete lines of pipe and conduit can be installed in a minimum of time with a minimum of effort. The installation is strong and durable and piping is firmly secured so that leaks caused by vibration are virtually eliminated.

The service rack is permanently free from the laboratory furniture itself, thus permitting removal of cabinet units to expose all piping and wiring for repair or maintenance. Installation and maintenance costs are thus reduced and installation is faster. The laboratory facilities are more flexible with this system as cabinets can be interchanged or new furniture installed without disturbing the functioning of service fixtures. Laboratory Furniture Co., Inc., Dept. CUB, 37-18 Northern Blvd., Long Island City 1, N. Y. (Key No. 187)

Gray VoicEraser

Gray Audograph records can be resurfaced and re-used up to fifty times with the new Gray VoicEraser, VE-2 model. The Audograph method of dictation recording embosses the plastic records. When the record is processed in the VoicEraser, heat floats the plastic back into the grooves and restores the surface in approximately three seconds. The new VE-2 model washes as it erases, thus eliminating the possibility of any surface dirt being ground into the record. Discs are fed into the machine by hand and carried through brushes under a solution of a detergent and



warm water before going into the erasing process. The Gray Mfg. Co., Dept. CUB, Hartford 1, Conn. (Key No. 188)

Laminated Building Panel

Of light weight, exceptional strength and high insulating value, the new laminated building panel developed by Owens-Illinois is effective for both exterior and interior walls. Employing the calcium-silicate insulating material, Kaylo, the panels are resistant to moisture, flame or fungus and can be installed with ordinary tools.

The new Kaylo laminated panel is composed of a 1½ inch core of Kaylo insulation faced with ½ inch cement-asbestos boards. Each standard-sized Kaylo panel is 4 by 8 feet in size, weighs 200 pounds and can be erected by two men in a matter of minutes. It is said to offer more insulation value than a 16 inch concrete wall. The panels can be used to provide complete curtain walls or non-load bearing sections which require no painting, tarring, plastering or other finishing although they may be decorated with alkaline-resistant paints if desired. **Owens-Illinois Glass Co., Kaylo Div., Dept CUB, Toledo 1, Ohio.** (Key No. 189)

Lens Cleaner

A new scientific lens coating and cleaning agent is offered in Ozicote. The product is pressure-packed in small steel cylinders which fit into a patented chrome plated dispenser. It is designed to clean even the most stubborn dirt and grease from any type of lens and to fill in microscopic surface scratches and abrasions, leaving a lasting silicone film to help protect the surface of the lens. **Woodlets Incorporated, Dept. CUB, Portland, Pa.** (Key No. 190)

Lower In-Wall Table Unit

In response to numerous requests from those concerned with teaching problems, a new model of the Schieber In-Wall

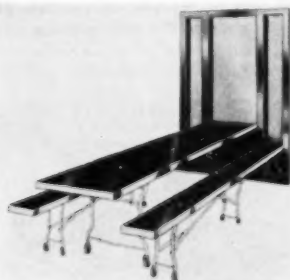


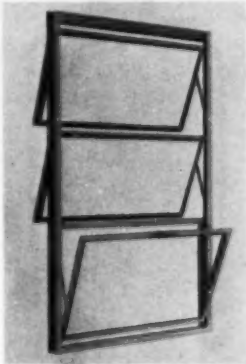
Table and Bench Unit is now available with table 25 inches high instead of the standard 30 inches and with benches five inches lower than standard models which will be continued in the line. They

should be of particular interest for university practice schools as smaller children can rest their feet on the floor when sitting at the new model, thus contributing to better posture and greater comfort, and adults are not uncomfortable when sitting in the shorter unit.

The new 25 inch model is the same length as the standard unit, 13 feet 8 inches long, seating 10 students on each side. It has special counter balancing so that it is as easily operated as the standard model and the wall cabinet into which it folds is the same size. The units quickly convert gymnasiums or other large areas into lunch or study rooms. **Schieber Mfg. Co., Dept. CUB, 12720 Burt Rd., Detroit 23, Mich.** (Key No. 191)

Aluminum Windows

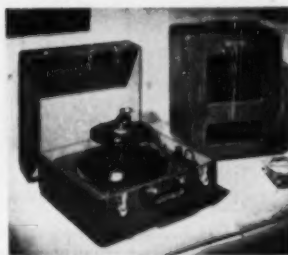
The new Donovan-Universal Aluminum Windows are being introduced in awning, projected and casement types. The new windows feature Alcoa hollow



extruded aluminum sash sections. Corner sections in the sash are joined by a barbed right angle wedge driven into the hollow sash members, then welded for rigidity.

Simplified sash control is provided in the new windows through the multiple operating feature of the awning and projected types which provides lower vent opening, closing and locking of all upper vents. Awning type windows permit draft-free ventilation, and enable both sides of the windows to be washed from inside the building. Awning, projected and casement type windows are available in a wide range of standard sizes and in special sizes on order. Awning and projected types are available with sash independently operated or equipped with automatic multiple operating hardware. Manually and electrically operated remote controls can be supplied for operation of high windows beyond reach. **Universal Window Co., Dept. CUB, 950 Parker St., Berkeley 2, Calif.** (Key No. 192)

Portable Changer and Amplifier



Two new units, a portable record changer and a high-fidelity audio amplifier, have been announced by Webster-Chicago. The portable record changer, designed for reproducing recorded music or any disc recorded material, can be used in auditoriums, classrooms and gymnasiums as it is easily portable. The changer and amplifier can be used to provide music in gymnasiums for dances or sports events, or in the auditoriums where a band is not practical. The unit is equally effective when used in the classroom where it will serve for reproduction of recorded dramatizations as well as music.

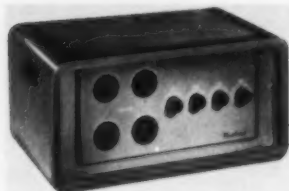
The amplifier may also be used with a microphone as a public address unit and in other ways. Known as Model 166, the amplifier is suitable for use with all Webster-Chicago portable record changers or as an external amplifier and speaker for wire recorders and other devices.

The record changer, Model 100-641, plays all three speed records and all three sized records with one control. It also plays inside-out recordings without adjustment. Other features include the Webster-Chicago velocity-trip for fast record change and minimum record wear, a balanced tone arm for light needle pressure and an automatic stop when the last record has been played. Both units are housed in matching burgundy leatherette covered carrying cases. **Webster-Chicago Corp., Dept. CUB, 5610 W. Bloomingdale Ave., Chicago 39.** (Key No. 193)

Water Cooler

Model GC is a new bottle type electric water cooler with a refrigerated storage compartment. The refrigerator compartment is of stainless steel, has facilities for freezing over three pounds of ice cubes and nearly a cubic foot of storage space. The unit accommodates a standard 5 gallon water bottle and serves 50 degree F. drinking water. The unit is equipped with a fully sealed hermetic refrigeration system and is finished in neutral gray with black recessed base. **Cordley & Hayes, Dept. CUB, 443 Fourth Ave., New York 16.** (Key No. 194)

Amplifier



Designed to handle the requirements of large public address installations, the new "Green Gem" Model 1960 biased power unit has a rated output of 60 watts at five per cent or less total harmonic distortion. The unit has four microphone inputs, two phonograph inputs with dual fader, electronic mixing and fading on all six inputs, separate bass and treble tone controls and provision for adding 60 watt Booster Amplifiers.

The "Green Gem" line has entirely new styling, the outer case being finished in dark green hammerloid. The control panel is finished in metallic bronze, set in a perforated aluminum finish front section. **Rauland-Borg Corp., Dept. CUB, 3523 Addison St., Chicago 18. (Key No. 195)**

Utility Window

Hot rolled steel casement sections are used in the new Fenestra utility window which has been entirely redesigned. The open-in sash does not protrude over lot lines when used along drives, alleys or street fronts. In restrooms, the top opening sash provides ventilation with privacy. The window is a weather-tight unit and comes completely packaged. It is standardized in one size only, 2 feet 9 3/4 inches wide by 3 feet 6 1/2 inches high with two lights 15 by 20 inches and two lights 15 1/2 by 19 3/4 inches. It is especially designed to fit concrete block construction. **Detroit Steel Products Co., Dept. CUB, 2250 E. Grand Blvd., Detroit 11, Mich. (Key No. 196)**

Insecticide

A new low cost aerosol insecticide that can be used for both intermittent and continuous spraying is known as Safe-Lex. It is a self-spraying insecticide with a new and different formula containing DuPont Methoxychlor. A light touch on the lever of the dispenser releases a fine insecticidal mist which reaches into cracks, crevices and under base boards and is effective against flies, fleas, mosquitoes, ants, roaches and silver fish. By inserting a paper clip or pin into the mechanism a continuous spray can be maintained for over night decontamination.

The spray is safe to use around food and people, kills quickly and comes packaged in a light hermetically sealed container which, when full, weighs 16 ounces. The insecticide is non-flammable, non-staining and pleasantly scented. **Bostwick Laboratories, Inc., Dept. CUB, 706 Bostwick Ave., Bridgeport 5, Conn. (Key No. 197)**

Revolving Shelf Utility Cart

Four spun aluminum shelves, each 22 inches in diameter, hung on a stainless steel central shaft, provide carrying space on the Lazy Susan Utility Cart No. 4. These trays revolve at a touch, giving quick access to material on the cart from any side. Steel tubing protects the circular shelves and serves as propelling handles. At the bottom of each tube is a five inch rubber tired, pivoted caster for easy propulsion in any direction. The cart is 43 inches high and can be used



for carrying medications, dressings and supplies of various types. **Gennett and Sons, Inc., Dept. CUB, Richmond, Ind. (Key No. 198)**

Frost Free Refrigerator

A fully automatic refrigerator is now available with the patented Frost Free system which automatically removes all frost from the freezer walls before it can build up and then automatically disposes of the defrost water by quick evaporation outside the storage compartment. This ensures dry cold air of the proper temperatures at all times and the absence of heavy layers of insulating frost results in more economical operation of the unit. The refrigerator also has a Westinghouse Sterilamp to eliminate air-borne bacteria, a full width freeze chest and an automatic door closer. **Westinghouse Electric Appliance Div., Dept. CUB, Mansfield Ohio. (Key No. 199)**

Plastic Desk Tops

A new desk top which is practically indestructible is now available as replacement on present equipment or on new desks. Made of Fibersin, a plastic impregnated product, the desk tops are resistant to heat, water, fruit juices, alcohol, ink, pencils, modeling clay, crayons and other classroom supplies. They are readily cleaned by wiping with a damp cloth and are practically proof against carving, chipping or peeling.

Fibersin is made from a wood fiber product, impregnated with Melmac, a melamine resin, and formed, then surfaced with plastic. Simulated wood grain effects in the finish provide the required light reflection and color tones to minimize eye strain.

The resin wood core of Fibersin is strong and can be shaped and finished in the same manner as the better grades of hardwood lumber and can be edge-finished without the use of metal molding or attached wood edges. The desk tops require practically no maintenance or refinishing. **Fibersin Plastics Co., Dept. CUB, Oconomowoc, Wis. (Key No. 200)**

Combination Floor Cleaner

Vacuum polishing and vacuum cleaning are combined in one unit in the "Columbus" Suction Polisher and Cleaner. The suction polisher sweeps the floor clean of dust without throwing it into the air while polishing the floor. Dirt and grit removed by the brushes are drawn into a bag, similar to the action of a vacuum cleaner, while the brushes polish linoleum and wood floors. The Columbus can be converted into a regular vacuum cleaner in a matter of seconds by attaching the Suction Cleaning Base which makes possible the use of vacuum dusting tools for use on furniture, venetian blinds and the like.

The cleaner also performs the regular scrubbing and drying process, operating with wet or dry vacuum pickup. The complete Columbus unit is being intro-



duced into this country by Columbus-Dixon, Inc., Dept. CUB, 333 E. 23rd St., New York 10. (Key No. 201)

Improved Dishwasher

Model S is a new door-type commercial dishwasher with vertical sliding doors and a newly designed revolving wash and rinse spray unit. It has a rated capacity of 2000 dishes an hour with a pump capacity of 180 gallons per minute. The high-power revolving wash and rinse unit above and below the racks creates a water pattern which is especially effective in cleaning dishes, glasses, cups and silverware due to the penetrating scrubbing action created. It may be equipped with electric time control of wash and rinse cycle.

The new model is equipped with three doors for straight through or corner operation and can be changed easily for either direction of feed. Two doors operate simultaneously on counterbalanced door weights. All three doors are locked in position during wash and rinse operation by an interlocking door control system. **Universal Dishwashing Machinery Co., Dept. CUB, 87 Windsor Place, Nutley 10, N.J. (Key No. 202)**

Portable Typewriter

An office sized typewriter keyboard is a feature of the new Finger-Flite Champion portable Underwood typewriter. The machine has been redesigned in every detail from inner mechanism to the carrying case and has forty improved features for operating convenience. Spacing between the keys is the same as on the standard office Underwood. With its case, the new typewriter weighs slightly over 16 pounds. It is finished in non-glare gray with new gray keytops and maroon cylinder knobs and space bar. **Underwood Corp., Dept. CUB, 1 Park Ave., New York 16. (Key No. 203)**

Snow Blower

Snows up to four feet deep can be handled with the new heavy-duty Snow Blower designed for use with the 5 h.p. Gravely Tractor. The Snow Blower attachment is quickly adjustable to throw snow either to the right or to the left, at any angle desired by the operator. It



clears a path 25 inches wide. **Gravely Motor Plow & Cultivator Co., Dept. CUB, Dunbar, W. Va. (Key No. 204)**

Kengrip Wax

Kengrip Wax is a new non-slip product designed to reduce the hazards of slipping on floors. The product does not streak, is not tacky, does not collect dirt and wears evenly. The new product has a high carnauba wax content and a high total solids content. Its water-like consistency makes application easy and smooth and it leaves an attractive coating with a hard sheen. Kengrip Wax is available in 5 gallon and 55 gallon drums. **David E. Kennedy, Inc., Dept. CUB, 58 Second Ave., Brooklyn 15, N. Y. (Key No. 205)**

Fruit Juicer

The Zippy Juicer has recently been taken over by the Sweden corporation and is to be known as the Sweden Speed Juicer. The juicer has been improved by the use of a stainless steel juice bowl and other changes to give greater precision fit of parts and greater efficiency in use.

All plastics and metals used in the



juicer are impervious to fruit acids. The motor is a heavy duty 1/4 h.p. completely enclosed model. Feeding is automatic so that no plunger is required to press fruits into the juicer and the disintegrator knife severs juice cells without bruising, thus retaining the full vitamin content. The juice is finally extracted by centrifugal force. The juicer is finished in white baked enamel. **Sweden Freezer Mfg. Co., Dept. CUB, 3401 Seventeenth Ave. W., Seattle 99, Wash. (Key No. 206)**

Improved Duplicating Stencil

The protective film on the Frankel duplicating stencil is now perforated so that it can be removed below the glue line, thus keeping cut stencils safely covered and permitting their filing. Known as the Klean Write perforated stencil, the product is designed to simplify stencil handling. **Frankel Carbon & Ribbon Co., Dept. CUB, 1716 Arapahoe St., Denver 2, Colo. (Key No. 207)**

Salamander Broiler



Smaller institutions with limited requirements for broiling and larger ones which need supplementary broiling equipment will be interested in the new Salamander broiler which has recently been added to the Garland line of cooking equipment. The Salamander broiler saves floor space since it fastens to the range in the same manner as a high shelf. The multi-port cast burners have ceramic radiants for quick, even heat distribution and are front-fired for greater heat flexibility. The grid is quickly raised or lowered by a convenient, front located lever. **Detroit-Michigan Stove Co., Dept. CUB, 6950 E. Jefferson St., Detroit 31, Mich. (Key No. 208)**

Can Dolly

A new all-steel dolly for moving the heaviest garbage, ash or waste can portable has been developed by The Witt Cornice Company. The dolly has brackets which center and thus prevent tipping of all cans. It is designed to accommodate No. 1, 2 and 3 Witt cans but will hold any can from 16 to 21 inches in diameter and most cans with capacities from 20 to 33 gallons. The unit is hot-dipped galvanized after fabrication to prevent rust. Either iron wheel or rubber wheel casters can be used. **The Witt Cornice Co., Dept. CUB, 2144 Winchell Ave., Cincinnati 14, Ohio. (Key No. 209)**

Foot Treatment Mat

A new unit for use in the shower room for foot treatment and as a safeguard against infection has been designed to dispense Foam-X Solution, the non-toxic astringent fungicide recently introduced. Foam-X is described as a pleasant-to-use, mild treatment which toughens the skin and increases resistance to infection. A plastic reservoir that holds almost a gallon of Foam-X Solution is connected with the sponge rubber dispensing mat and feeds the solution into the mat as it is needed. The solution remains at the same level always in the mat, eliminating over-filling, splash and waste. **Foam-X Co., Dept. CUB, 332 W. Alamar Ave., Santa Barbara, Calif. (Key No. 210)**

Product Literature

- Catalog information on **Von Duprin Fire and Panic Exit Devices** is offered in a recently published booklet available from Vonnegut Hardware Co., Von Duprin Div., Indianapolis 4, Ind. The full line of locks and exit devices manufactured by the company is illustrated with complete descriptive information. (Key No. 211)

- A new folder sets forth the advantages of the **Triple Check Automatic Filing System** for files of ten drawers or more. The basic elements of Triple Check are file by letter, control by number, check by color. The system is readily learned by the newest clerk and speeds the filing operations. The folder is issued by Remington Rand Inc., 315 Fourth Ave., New York 10. (Key No. 212)

- The ventilation of garage areas used for cars of faculty and students or for buses has long been a problem. A solution is offered in a folder entitled "**Garage Ventilation**" and published by The National System of Garage Ventilation, Inc., 318 N. Church St., Decatur, Ill. Engineered to remove poisonous, health destroying carbon monoxide gas and smoke fumes at their source, the method is said to be approved by federal, state and city health departments and insurance companies and is described fully in the folder. (Key No. 213)

- The story of the progress made in centrally controlled clock systems is told in **Bulletin No. 190** issued by National Time and Signal Corp., 21800 Wyoming Ave., Detroit 20, Mich. The new folder describes the Electromatic clock system and discusses self-regulation, the automatic individual correction system for any clock that might not agree with the master clock. The bulletin also gives typical master specifications for a centrally controlled synchronous clock and program bell or automatic dismissal system. (Key No. 214)

- An informative booklet on "**Installing Armored Cable**" has been issued by the Armored Cable Section of National Electrical Manufacturers Assn., 155 E. 44th St., New York 17. The booklet discusses the how, when and where of installing the Armored Cable System of wiring. (Key No. 215)

- A new 16 page data book and catalog has been published by The F. J. Stokes Machine Co., 5900 Tabor Rd., Philadelphia 20, Pa. on "**Stokes Freeze-Drying Equipment for Research and Industry**," Catalog No. 706. The catalog outlines the basic principles of freeze-drying and describes and illustrates both the freeze-drying equipment and the necessary auxiliary equipment. (Key No. 216)

- "**Roof Savers**" is the title of a folder issued by Johns-Manville, 22 E. 40th St., New York 16, giving information on how to prolong the life of a roof and how to repair accidental damage. (Key No. 217)

- An interesting booklet, "**Formula for Your Future**," has been published by American Cyanamid Co., 30 Rockefeller Plaza, New York 20, "to portray the opportunities in research and allied endeavors that exist within this organization for the technical man and woman." The book was written for the technical student as well as the technical graduate and is an informative and helpful publication. (Key No. 218)

- The 1951 edition of the **Lowerator Dispenser Catalog** is now available from the American Machine & Foundry Co., 485 Fifth Ave., New York 17. New models and sizes of the Lowerator storage and automatic dispensing unit for dishes are illustrated and described and installation pictures are included showing the new Lowerator chassis units installed in refrigerated cabinets. Complete lists of racks and china sizes and opening and chassis dimensions are shown in tables with the models described pictured on facing pages. (Key No. 219)

- The complete line of recreation equipment for schools, playgrounds, gymnasiums, athletic fields and other uses available through Game-Time, Inc., Litchfield, Mich., is described and illustrated in the new 32 page **two color catalog** recently released by the company. A new free playground planning service instituted by the company is also discussed. (Key No. 220)

- The new portfolio-sized **Color Calibrator and DeLuxe Color Book** offered by Pratt & Lambert-Inc., 75 Tonawanda St., Buffalo 7, N.Y., is designed to assist anyone to create harmonious color schemes quickly. The small Color Calibrator is in book form and contains a 12 spectrum color wheel. The wheel is divided into 12 pie-shaped segments or color families, each designated by code letters for ready identification. Patented pointers fixed at the hub of the wheel quickly and accurately assemble from two to six colors in harmonious relationship, appropriate for any interior decoration. The companion DeLuxe Color Book contains two sheets each of 100 carefully selected decorative colors. Each sheet is perforated into 30 rectangular color swatches which can be easily torn out and used with other colors in assembling a complete color plan. On the back of each swatch is printed the color name and the code letters which key it to one of the corresponding color families shown on the Color Calibrator. (Key No. 221)

- The complete line of commercial fluorescent and germicidal lighting equipment manufactured by The Edwin F. Guth Co., 2615 Washington Ave., St. Louis 3, Mo., is illustrated and described in the new **Guth Catalog No. 47**. Full data including specifications are included in the catalog which features the new Guth 4 inch Slimline for the complete line of 40 watt fluorescents. (Key No. 222)

- The new Catalog L50 presenting "**NewLife**" **Library Furniture** is a most attractively laid out and printed 32 page publication with spiral binding which makes it easy to use. Published by John E. Sjöström Co., 1717 N. Tenth St., Philadelphia 22, Pa., the catalog presents photographs, drawings in line, dimensions and applications of complete library furniture for use in schools, colleges, universities, public and private libraries. It is arranged for ready reference and is fully indexed. (Key No. 233)

- A series of recordings has been made, entitled "**This is the UN.**" It is in the style of a dynamic documentary program, presenting through the voices of United Nations officials, members of the Secretariat and other world figures, the story of the origin, aims and achievements of the United Nations. The records provide authentic historical material on the United Nations from 1945 to 1950. The recordings were designed for schools, colleges, libraries and community organizations, are made on Vinylite in either 78 or 33 1/3 r.p.m. and have an accompanying manual. They are distributed by Tribune Productions, 40 E. 49th St., New York 17. (Key No. 224)

- The new 1951 Catalog No. 124 of Allied Radio Corp., 833 W. Jackson Blvd., Chicago 7, gives complete information on everything in radio, television and electronic parts and equipment for classroom, laboratory and shop. The 212 page publication puts special emphasis on the selection of books, materials, training kits, test instruments, parts and equipment required by schools for their radio and electronics training activities. (Key No. 225)

Suppliers' News

Fisher Scientific Co., 717 Forbes St., Pittsburgh 10, Pa., scientific supply house, announces the opening of a new plant at 7722 Woodbury Drive, Washington, D.C. The new plant will serve as a stocking, shipping and repair center for the Atlantic Seaboard Area.

The B. F. Goodrich Company, Flooring Division, Watertown 72, Mass., is the new name of the **Flooring Division of Hood Rubber Co.,** manufacturer of various types of composition flooring.

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Turn the Tables



**ON COSTLY UPKEEP,
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The "Captain" Chair No. 7455 is generously dimensioned for unusual comfort. Its authentic design is derived from an early New England original identified with old Atlantic shipping days. Chair No. 7254½ without arms is of matching design.



7254½



776

Send for photographs, samples of finish and reasonable prices. Please tell us purposes for which furniture is desired.

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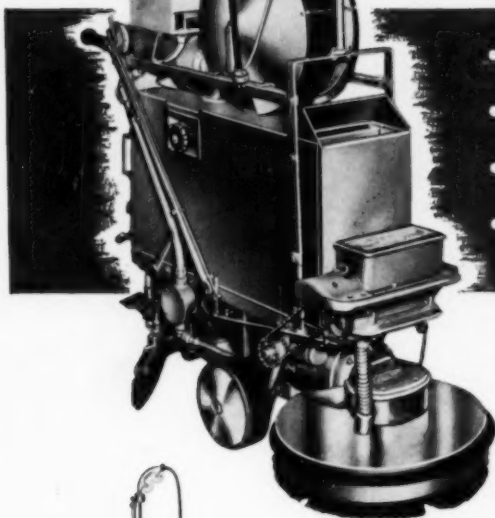
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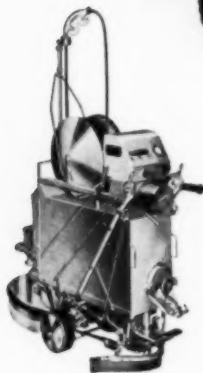
NEW SCRUBBER-VAC

Cuts Cleaning Time $\frac{2}{3}$

FOR SMALL-AREA BUILDINGS



- Specially designed for buildings with 2,000 to 15,000 sq. ft. of floor space
- Applies the cleanser, scrubs, rinses, and picks up in ONE operation
- Also handles the dry work — steel-wooling, polishing, et cetera
- Can be leased or purchased (leasing budgets cleaning expense)



Now the labor-saving advantages of *combination-machine-scrubbing* are available to small as well as larger buildings. The new 418P Finnell Scrubber-Vac, for small-area buildings with 2,000 to 15,000 sq. ft. of floor space, cleans floors in *approximately one-third the time* required with a conventional 15 or 18-inch polisher-scrubber using separate equipment for picking up. A Finnell Scrubber-Vac speeds cleaning by handling four operations in one! It applies the cleanser, scrubs, rinses if required, and picks up (damp-dries the floor) — all in a single operation.

All the refinements of Finnell's larger combination machines are embodied in the new smaller unit, No. 418P (18-inch brush ring). Has new type of water valve that *assures* uniform flow of water . . . powerful vacuum for efficient pickup (performs *quietly*) . . . a Finnell-developed trouble-free clutch . . . self-winding cable reel . . . improved waterproof wiring and minimum electrical connections, simplifying the cleaning of the machine . . . G. E. Motors and Timken Bearings. The machine is self-propelled—operator merely *guides* it. Supplied with or without powder dispenser. Incidentally, it's good to know that when you choose *Finnell Equipment*, a Finnell man is readily available to help train your maintenance operators in its proper use.

SEE IT IN ACTION ON YOUR OWN FLOORS!

Find out what you would save with a Finnell Scrubber-Vac. Finnell makes several models and sizes. For demonstration, consultation, or literature, phone or write nearest Finnell Branch or Finnell System, Inc., 4402 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

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